009-0021

Maryland
Department of
the Environment

**Larry Hogan**, Governor
**Boyd K. Rutherford**, Lt. Governor

**Horacio Tablada**, Secretary
**Suzanne E. Dorsey**, Deputy Secretary

Mr. Richard Gangle, Director
Environmental Services, LNG Operations
Cove Point LNG Terminal
2100 Cove Point Rd.
Lusby, MD 20657

SEP 15 2022

Dear Mr. Gangle:

Re: Renewal Part 70/ Title V Operating Permit #24-009-0021

Enclosed, please find the renewal Part 70/Title V Operating Permit and Fact Sheet for the Cove Point LNG Terminal located in Charles County, MD. The Permit will expire on July 31, 2027.

The Code of Maryland Regulations (COMAR) 26.11.03.11 states the following:

If the Department denies a Part 70 permit or issues it with terms and conditions that are objectionable to the applicant, the applicant may request that a contested case hearing be held regarding the permit. This request shall be made to the Department in writing not later than 15 days after the applicant receives notice that the permit has been denied or of the objectionable terms and conditions. The request shall include the basis for the request and refer to any objectionable terms and conditions.

Please note the following revised condition in the Permit under Section II, General Conditions, Number 5, Permit Renewal:

The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit 12 months before the expiration of the permit. Upon submitting a complete application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

If you have any questions, please feel free to contact Ms. Marcie Gurley, Chief, Technical Support Division, at Marcie.gurley@maryland.gov, or (410) 537-3230.

Sincerely,

Suna Yi Sariscak, Manager
Air Quality Permits Program
Air & Radiation Administration

SYS/jm

Enclosures

cc: EPA Region III (w/encl)
Mr. Joe Pietro

KEEP PERMIT AT SITE

CONTROL NO. B - 07220

Larry Hogan
Governor

State of Maryland

Horacio Tablada
Secretary

# DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[ ] Construction Permit

Part 70
[X] Operating Permit

PERMIT NO. 24-009-0021

DATE ISSUED SEP 15 2022

PERMIT FEE To be paid in accordance with COMAR 26.11.02.19B

EXPIRATION DATE July 31, 2027

LEGAL OWNER & ADDRESS
Cove Point LNG Terminal
2100 Cove Point Rd.
Lusby, MD 20657
Attn: Mr. Richard Gangle, Director
Environmental Services LNG Operations

SITE
Cove Point LNG Terminal
2100 Cove Point Rd.
Lusby, MD 20657
AI # 5287

**SOURCE DESCRIPTION**

One (1) Liquefied natural gas (LNG) storage and terminal facility.

This source is subject to the conditions described on the attached pages.



Program Manager

Director, Air and Radiation Administration

**COVE POINT LNG, L.P**
**2100 COVE POINT ROAD**
**LUSBY, MARYLAND 20657**
**PART 70 OPERATING PERMIT NO. 24-009-0021**

**COVE POINT LNG, L.P**
**2100 COVE POINT ROAD**
**LUSBY, MARYLAND 20657**
**PART 70 OPERATING PERMIT NO. 24-009-0021**

## SECTION I SOURCE IDENTIFICATION

### 1. DESCRIPTION OF FACILITY

Cove Point LNG, L.P, formerly known as Dominion Energy Cove Point LNG, L.P., owns and operates an existing liquefied natural gas (LNG) storage and terminal facility on the western shore of the Chesapeake Bay near Cove Point in Lusby (Calvert County) Maryland (the Cove Point terminal). The Cove Point facility is bi-directional, and both receive, stores, and vaporizes imported LNG from sea-going tankers and liquefies natural gas from the pipeline for export in sea-going tankers.

The Cove Point terminal currently operates several types of emissions units, including combustion turbines, submerged vaporizers, water-ethylene glycol (WEG) heaters, boilers, emergency generators, fire pumps, and vent heaters.

### 2. FACILITY INVENTORY LIST

| Emissions Unit Number | MDE Registration Number | Emissions Unit Name and Description | Date of Installation |
|---|---|---|---|
| S001 | 009-5-0012 (formerly 9-0032) | One (1) natural gas-fired, simple-cycle General Electric Frame 3 combustion turbine (model MS3142) with a nominal rating of 135.6 MMBTU/hr. – used to generate electricity. **Controls:** Selective catalytic reduction (SCR) unit | Turbine – Aug. 1977 SCR – April 2003 SCR-modified 2005 |
| S002 | 009-5-0013 (formerly 9-0033) | One (1) natural gas-fired, simple-cycle General Electric Frame 3 combustion turbine (model MS3142) with a nominal rating of 135.6 MMBTU/hr. – used to generate electricity. **Controls:** Selective catalytic reduction (SCR) unit | Turbine – Aug. 1977 SCR – April 2003 SCR-modified 2005 |
| S003 | 009-5-0014 (formerly 9-0034) | One (1) natural gas-fired, simple-cycle General Electric Frame 3 combustion turbine (model MS3142) with a nominal rating of 135.6 MMBTU/hr. – used to generate electricity. **Controls:** Selective catalytic reduction (SCR) unit | Turbine – Aug. 1977 SCR – April 2003 SCR-modified 2005 |

| Emissions Unit Number | MDE Registration Number | Emissions Unit Name and Description | Date of Installation |
|---|---|---|---|
| S004 | 009-5-0016 through 009-5-0025 | Ten (10) natural gas-fired submerged gas vaporizers, each with a rating of 72 MMBtu/hr. – Used to vaporize LNG<br>S004-16 vaporizer (72 MM BTU/hr.)<br>S004-17 vaporizer (72 MM BTU/hr.)<br>S004-18 vaporizer (72 MM BTU/hr.)<br>S004-19 vaporizer (72 MM BTU/hr.)<br>S004-20 vaporizer (72 MM BTU/hr.)<br>S004-21 vaporizer (72 MM BTU/hr.)<br>S004-22 vaporizer (72 MM BTU/hr.)<br>S004-23 vaporizer (72 MM BTU/hr.)<br>S004-24 vaporizer (72 MM BTU/hr.)<br>S004-25 vaporizer (72 MM BTU/hr.)<br>**Controls:** Water injection system and air-to-fuel ratios | Burners Replaced March 2003 |
| S005 | 009-5-0015 | One (1) LNG emergency vent heater rated at 2.32 MM BTU/hr. – Used, under emergency conditions, to heat cold natural gas vapor for venting to the atmosphere<br>**Controls:** None | March 1978 |
| S006 | 009-9-0022 | One (1) Liquefaction heater rated at 8.9 MM BTU/hr. – Used to supply heat for regenerating zeolite molecular sieve used for cleaning pipeline gas<br>**Controls:** None | Sept. 1995 Re-activation 8/11/2011 |
| S007 | 009-5-0032 | One (1) hot water boiler with a rating of 12.3 MMBTU/hr. equipped with low-$NO_x$ burner– Used to heat water-glycol mixture to enable heat exchangers to heat natural gas for use at the facility.<br>**Controls:** None | Jan. 2003 Modified 6/21/2012 |
| S008 | 009-5-0033 | One (1) hot water boiler with a rating of 12.3 MMBTU/hr. equipped with low-$NO_x$ burner– Used to heat water-glycol mixture to enable heat exchangers to heat natural gas for use at the facility.<br>**Controls:** None | Jan. 2003 Modified 6/21/2012 |

| Emissions Unit Number | MDE Registration Number | Emissions Unit Name and Description | Date of Installation |
|---|---|---|---|
| | | | |
| FL1 – FL6 | 009-9-0022 | Liquefaction equipment components (LEC) – Import Facility | Sept. 1995 Re-activation 8/11/2011 |
| | | **CPX Project** | |
| S009 | 009-5-0049 | One (1) natural gas-fired simple-cycle General Electric Frame 5 Turbine with a nominal rating of 302 MMBtu/hr. equipped with dry-low $NO_x$ combustion (DLN), SCR and oxidation catalyst (OC)<br>**Controls:** DLN, SCR and OC | 2009 |
| S010 | 009-5-0050 | One (1) natural gas-fired simple-cycle General Electric Frame 5 Turbine with a nominal rating of 302 MMBtu/hr. equipped with dry-low $NO_x$ combustion (DLN), SCR and oxidation catalyst (OC)<br>**Controls:** DLN, SCR and OC | 2009 |
| S011– S017 | 009-5-0051 through 009-5-0057 | Seven (7) Johnston water-ethylene glycol (WEG) heaters, each with a rating of 82.3 MMBtu/hr., each equipped with ultra-low $NO_x$ burners (ULNB)<br>**Controls:** None | 2009 |
| S018 | 009-5-0058 | One (1) emergency vent heater rated at 1.3 MMBtu/hr. equipped with low-$NO_x$ burners (LNB).<br>**Controls:** None | 2009 |
| S019 | 009-9-0071 | One (1) natural gas-fired emergency generator with a rating of 1175 hp (825 kW).<br>**Controls:** None | 2009 |
| S020 | 009-9-0072 | One (1) natural gas-fired emergency generator with a rating of 1175 hp (825 kW).<br>**Controls:** None | 2009 |

| Emissions Unit Number | MDE Registration Number | Emissions Unit Name and Description | Date of Installation |
|---|---|---|---|
| | | | |
| **ASU Project** | | | |
| S021 | 009-0021-5-0065 | One (1) natural gas-fired, Solar Titan turbine with nominal rating of 137 MMBtu/hr. equipped with DLN combustors, SCR, and oxidation catalyst. **Controls:** DLN, SCR and OC | 2007 |
| S022 | N/A | One (1) natural gas-fired process heater equipped with Low $NO_x$ Burner (LNB) rated at 0.93 MMBtu/hr. **Controls:** None | 2007 |
| S023 | 009-0021-9-0082 | One (1) Caterpillar natural gas-fired lean burn 4 stroke (black-start) emergency generator rated at 1085-hp (920-kW). **Controls:** None | 2007 |
| S024 | 009-0021-5-0060 | One (1) Johnston Water-Ethylene Glycol (WEG) natural gas-fired vaporization heater with a rating of 82.3 MMBtu/hr. equipped with ULNB. **Controls:** None | 2009 |
| S025 | 009-0021-5-0062 | One (1) Johnston Water-Ethylene Glycol (WEG) natural gas-fired vaporization heater with a rating of 82.3 MMBtu/hr. equipped with ULNB. **Controls:** None | 2009 |
| S026 | 009-0021-9-0091 | One (1) Onan 605 hp (400 kW) diesel-fired engine intended for emergency purposes. (MDE PTC Issued 1/18/2013) | Spring 2002 |
| **Liquefaction Facility** | | | |
| S027 & S028 | 009-0021-5-0071 | Two (2) GE Frame 7 combustion turbines (CT) with heat recovery steam generators (HRSGs) each nominally rated at 1,062 MMBtu/hr. with a nominal net shaft power of 87.2 MW rated capacity (116,178 hp nameplate Power Output), equipped with dry low $NO_x$ (DLN1) combustors, selective | 2017 |

| Emissions Unit Number | MDE Registration Number | Emissions Unit Name and Description | Date of Installation |
|---|---|---|---|
| | | catalytic reduction system (SCRs), and oxidation catalysts | |
| S029 & S030 | 009-0021-5-0080 | Two (2) Cleaver Brooks natural gas fired auxiliary boilers each rated at 424 MMBtu/hr. heat input (rated at 427 MMBtu/hr. while firing station process natural gas), each equipped with low NOx burners, SCRs, and oxidation catalysts | 2017 |
| S034 | 009-0021-9-0092 | One (1) Emergency diesel fired generator rated at 1502 hp | 2017 |
| N/A | 009-0021-9-0093 | Five (5) diesel fired fire pump engines each rated at 350 hp | 2017 |
| S031 | 009-0021-6-0041 | Thermal Oxidizer (56 MMBtu/hr.) equipped with SCR and an oxidization catalyst for Pretreatment process | 2017 |
| S032 & S033 | N/A | Two (2) Ground Flares (North and South) | 2017 |
| FL7 | N/A | Piping and Equipment Component Leaks – Liquefaction (Export) Facility | 2017 |
| N/A | N/A | Storage tanks (operating on a closed loop system):<br>Four (4) 102,448-gallon operating capacity propane make-up tanks;<br>Two (2) 34,040-gallon operating capacity ethane make-up tanks; and<br>Two (2) 32,429-gallon operating capacity hydrocarbon tanks<br>One (1) propane transfer drum with an operating capacity of 5,538 gallons.<br>Two (2) 0.05 MMBtu/hr. propane vaporizers utilized for flare pilot backup fuel.<br>One (1) nominal 1850-gallon propane North Flare pilot backup tank.<br>One (1) nominal 1000-gallon propane South Flare pilot backup tank. | 2017 |
| **Other Onsite Equipment** | | | |
| N/A | N/A | Three (3) Emergency diesel-fired generators each rated at 465 hp | 1997, 2000, & 2003 |

| Emissions Unit Number | MDE Registration Number | Emissions Unit Name and Description | Date of Installation |
|---|---|---|---|
| N/A | N/A | One (1) Emergency diesel-fired offshore fire pump rated at 340 hp | 1977 |
| N/A | N/A | One (1) Emergency diesel-fired onshore fire pump rated at 360 hp | 2008 |
| N/A | N/A | One (1) Emergency diesel-fired onshore fire pump rated at 350 hp | 2017 |
| N/A | N/A | Three (3) emergency diesel-fired air compressors each rated at 475 hp | 2018 |

## SECTION II GENERAL CONDITIONS

### 1. DEFINITIONS

**[COMAR 26.11.01.01] and [COMAR 26.11.02.01]**

The words or terms in this Part 70 permit shall have the meanings established under COMAR 26.11.01 and .02 unless otherwise stated in this permit.

### 2. ACRONYMS

| | |
|---|---|
| ARA | Air and Radiation Administration |
| BACT | Best Available Control Technology |
| Btu | British thermal unit |
| CAA | Clean Air Act |
| CAM | Compliance Assurance Monitoring |
| CEM | Continuous Emissions Monitor |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| COMAR | Code of Maryland Regulations |
| EPA | United States Environmental Protection Agency |
| FR | Federal Register |
| gr | grains |
| HAP | Hazardous Air Pollutant |
| MACT | Maximum Achievable Control Technology |
| MDE | Maryland Department of the Environment |
| MVAC | Motor Vehicle Air Conditioner |
| NESHAPS | National Emission Standards for Hazardous Air Pollutants |
| $NO_x$ | Nitrogen Oxides |
| NSPS | New Source Performance Standards |
| NSR | New Source Review |
| OTR | Ozone Transport Region |
| PM | Particulate Matter |
| PM10 | Particulate Matter with Nominal Aerodynamic Diameter of 10 micrometers or less |
| ppm | parts per million |
| ppb | parts per billion |
| PSD | Prevention of Significant Deterioration |
| PTC | Permit to construct |
| PTO | Permit to operate (State) |
| SIC | Standard Industrial Classification |
| $SO_2$ | Sulfur Dioxide |

| | |
|---|---|
| TAP | Toxic Air Pollutant |
| tpy | tons per year |
| VE | Visible Emissions |
| VOC | Volatile Organic Compounds |

## 3. EFFECTIVE DATE

The effective date of the conditions in this Part 70 permit is the date of permit issuance, unless otherwise stated in the permit.

## 4. PERMIT EXPIRATION

**[COMAR 26.11.03.13B(2)]**

Upon expiration of this permit, the terms of the permit will automatically continue to remain in effect until a new Part 70 permit is issued for this facility provided that the Permittee has submitted a timely and complete application and has paid applicable fees under COMAR 26.11.02.16.

Otherwise, upon expiration of this permit the right of the Permittee to operate this facility is terminated.

## 5. PERMIT RENEWAL

**[COMAR 26.11.03.02B(3)] and [COMAR 26.11.03.02E]**

The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit at least 12 months before the expiration of the permit. Upon submitting a completed application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

The Permittee, upon becoming aware that any relevant facts were omitted, or incorrect information was submitted in the permit application, shall submit such supplementary facts or corrected information no later than 10 days after becoming aware that this occurred. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a completed application was submitted, but prior to the release of a draft permit. This information shall be submitted to the Department no later than 20 days after a new requirement has been adopted.

## 6. CONFIDENTIAL INFORMATION

**[COMAR 26.11.02.02G]**

In accordance with the provisions of the State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland, all information submitted in an application shall be considered part of the public record and available for inspection and copying, unless the Permittee claims that the information is confidential when it is submitted to the Department. At the time of the request for inspection or copying, the Department will make a determination with regard to the confidentiality of the information. The Permittee, when requesting confidentiality, shall identify the information in a manner specified by the Department and, when requested by the Department, promptly provide specific reasons supporting the claim of confidentiality. Information submitted to the Department without a request that the information be deemed confidential may be made available to the public. Subject to approval of the Department, the Permittee may provide a summary of confidential information that is suitable for public review. The content of this Part 70 permit is not subject to confidential treatment.

## 7. PERMIT ACTIONS

**[COMAR 26.11.03.06E(3)] and [COMAR 26.11.03.20(A)]**

This Part 70 permit may be revoked or reopened and revised for cause. The filing of an application by the Permittee for a permit revision or renewal; or a notification of termination, planned changes or anticipated noncompliance by the facility, does not stay a term or condition of this permit.

The Department shall reopen and revise, or revoke the Permittee's Part 70 permit under the following circumstances:

a. Additional requirements of the Clean Air Act become applicable to this facility and the remaining permit term is 3 years or more;

b. The Department or the EPA determines that this Part 70 permit contains a material mistake, or is based on false or inaccurate information supplied by or on behalf of the Permittee;

c. The Department or the EPA determines that this Part 70 permit must be revised or revoked to assure compliance with applicable requirements of the Clean Air Act; or

d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

## 8. PERMIT AVAILABILITY

**[COMAR 26.11.02.13G]**

The Permittee shall maintain this Part 70 permit in the vicinity of the facility for which it was issued, unless it is not practical to do so, and make this permit immediately available to officials of the Department upon request.

## 9. REOPENING THE PART 70 PERMIT FOR CAUSE BY THE EPA

**[COMAR 26.11.03.20B]**

The EPA may terminate, modify, or revoke and reissue a permit for cause as prescribed in 40 CFR §70.7(g)

## 10. TRANSFER OF PERMIT

**[COMAR 26.11.02.02E]**

The Permittee shall not transfer this Part 70 permit except as provided in COMAR 26.11.03.15.

## 11. REVISION OF PART 70 PERMITS – GENERAL CONDITIONS

**[COMAR 26.11.03.14] and [COMAR 26.11.03.06A(8)]**

a. The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.

b. When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to

the permit. This information shall be sufficient to evaluate the proposed change and to determine whether it will comply with all applicable requirements of the Clean Air Act.

c. The Permittee may not change any provision of a compliance plan or schedule in a Part 70 permit as an administrative permit amendment or as a minor permit modification unless the change has been approved by the Department in writing.

d. A permit revision is not required for a change that is provided for in this permit relating to approved economic incentives, marketable permits, emissions trading, and other similar programs.

## 12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

**[COMAR 26.11.03.17]**

The Permittee may apply to the Department to make a significant modification to its Part 70 Permit as provided in COMAR 26.11.03.17 and in accordance with the following conditions:

a. A significant modification is a revision to the federally enforceable provisions in the permit that does not qualify as an administrative permit amendment under COMAR 26.11.03.15 or a minor permit modification as defined under COMAR 26.11.03.16.

b. This permit does not preclude the Permittee from making changes, consistent with the provisions of COMAR 26.11.03, that would make the permit or particular terms and conditions of the permit irrelevant, such as by shutting down or reducing the level of operation of a source or of an emissions unit within the source. Air pollution control equipment shall not be shut down or its level of operation reduced if doing so would violate any term of this permit.

c. Significant permit modifications are subject to all requirements of COMAR 26.11.03 as they apply to permit issuance and renewal, including the requirements for applications, public participation, and review by affected states and EPA, except:

(1) An application need include only information pertaining to the proposed change to the source and modification of this permit, including a description of the change and modification, and any

new applicable requirements of the Clean Air Act that will apply if the change occurs;

(2) Public participation, and review by affected states and EPA, is limited to only the application and those federally enforceable terms and conditions of the Part 70 permit that are affected by the significant permit modification.

d. As provided in COMAR 26.11.03.15B(5), an administrative permit amendment may be used to make a change that would otherwise require a significant permit modification if procedures for enhanced preconstruction review of the change are followed that satisfy the requirements of 40 CFR 70.7(d)(1)(v).

e. Before making a change that qualifies as a significant permit modification, the Permittee shall obtain all permits-to-construct and approvals required by COMAR 26.11.02.

f. The Permittee shall not make a significant permit modification that results in a violation of any applicable requirement of the Clean Air Act.

g. The permit shield in COMAR 26.11.03.23 applies to a final significant permit modification that has been issued by the Department, to the extent applicable under COMAR 26.11.03.23.

## 13. MINOR PERMIT MODIFICATIONS

**[COMAR 26.11.03.16]**

The Permittee may apply to the Department to make a minor modification to the federally enforceable provisions of this Part 70 permit as provided in COMAR 26.11.03.16 and in accordance with the following conditions:

a. A minor permit modification is a Part 70 permit revision that:

(1) Does not result in a violation of any applicable requirement of the Clean Air Act;

(2) Does not significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by:

(a) Adding new requirements,

(b) Eliminating the requirements if they are rendered meaningless because the emissions to which the requirements apply will no longer occur, or

(c) Changing from one approved test method for a pollutant and source category to another;

(3) Does not require or modify a:

(a) Case-by-case determination of a federally enforceable emissions standard,

(b) Source specific determination for temporary sources of ambient impacts, or

(c) Visibility or increment analysis;

(4) Does not seek to establish or modify a federally enforceable permit term or condition for which there is no corresponding underlying applicable requirement of the Clean Air Act, but that the Permittee has assumed to avoid an applicable requirement to which the source would otherwise be subject, including:

(a) A federally enforceable emissions standard applied to the source pursuant to COMAR 26.11.02.03 to avoid classification as a Title I modification; and

(b) An alternative emissions standard applied to an emissions unit pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act

(5) Is not a Title I modification; and

(6) Is not required under COMAR 26.11.03.17 to be processed as a significant modification to this Part 70 permit.

b. Application for a Minor Permit Modification

The Permittee shall submit to the Department an application for a minor permit modification that satisfies the requirements of COMAR 26.11.03.03 which includes the following:

(1) A description of the proposed change, the emissions resulting from the change, and any new applicable requirements that will apply if the change is made;

(2) The proposed minor permit modification;

(3) Certification by a responsible official, in accordance with COMAR 26.11.02.02F, that:

(a) The proposed change meets the criteria for a minor permit modification, and

(b) The Permittee has obtained or applied for all required permits-to-construct required by COMAR 26.11.03.16 with respect to the proposed change;

(4) Completed forms for the Department to use to notify the EPA and affected states, as required by COMAR 26.11.03.07-.12.

c. Permittee's Ability to Make Change

(1) For changes proposed as minor permit modifications to this permit that will require the applicant to obtain a permit to construct, the permit to construct must be issued prior to the new change.

(2) During the period of time after the Permittee applies for a minor modification but before the Department acts in accordance with COMAR 26.11.03.16F(2):

(a) The Permittee shall comply with applicable requirements of the Clean Air Act related to the change and the permit terms and conditions described in the application for the minor modification.

(b) The Permittee is not required to comply with the terms and conditions in the permit it seeks to modify. If the Permittee fails to comply with the terms and conditions in the application during this time, the terms and conditions of both this permit and the application for modification may be enforced against it.

d. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.16 is not within the scope of this regulation.

e. Minor permit modification procedures may be used for Part 70 permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, but only to the extent that the minor permit modification procedures are explicitly provided for in regulations approved by the EPA as part of the Maryland SIP or in other applicable requirements of the Clean Air Act.

## 14. ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS

**[COMAR 26.11.03.15]**

The Permittee may apply to the department to make an administrative permit amendment as provided in COMAR 26.11.03.15 and in accordance with the following conditions:

a. An application for an administrative permit amendment shall:

(1) Be in writing;

(2) Include a statement certified by a responsible official that the proposed amendment meets the criteria in COMAR 26.11.03.15 for an administrative permit amendment, and

(3) Identify those provisions of this part 70 permit for which the amendment is requested, including the basis for the request.

b. An administrative permit amendment:

(1) Is a correction of a typographical error?

(2) Identifies a change in the name, address, or phone number of a person identified in this permit, or a similar administrative change involving the Permittee or other matters which are not directly related to the control of air pollution;

(3) requires more frequent monitoring or reporting by the Permittee;

(4) Allows for a change in ownership or operational control of a source for which the Department determines that no other revision to the permit is necessary and is documented as per COMAR 26.11.03.15B(4);

(5) Incorporates into this permit the requirements from preconstruction review permits or approvals issued by the Department in accordance with COMAR 26.11.03.15B(5), but only if it satisfies 40 CFR 70.7(d)(1)(v);

(6) Incorporates any other type of change, as approved by the EPA, which is similar to those in COMAR 26.11.03.15B(1)—(4);

(7) Notwithstanding COMAR 26.11.03.15B(1)—(6), all modifications to acid rain control provisions included in this Part 70 permit are governed by applicable requirements promulgated under Title IV of the Clean Air Act; or

(8) Incorporates any change to a term or condition specified as State-only enforceable, if the Permittee has obtained all necessary permits-to-construct and approvals that apply to the change.

c. The Permittee may make the change addressed in the application for an administrative amendment upon receipt by the Department of the application, if all permits-to-construct or approvals otherwise required by COMAR 26.11.02 prior to making the change have first been obtained from the Department.

d. The permit shield in COMAR 26.11.03.23 applies to administrative permit amendments made under Section B(5) of COMAR 26.11.03.15 , but only after the Department takes final action to revise the permit.

e. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.15 is not within the scope of this regulation.

## 15. OFF-PERMIT CHANGES TO THIS SOURCE

**[COMAR 26.11.03.19]**

The Permittee may make off-permit changes to this facility as provided in COMAR 26.11.03.19 and in accordance with the following conditions:

a. The Permittee may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:

(1) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(2) The change is not subject to any requirements under Title IV of the Clean Air Act;

(3) The change is not a Title I modification; and

(4) The change does not violate an applicable requirement of the Clean Air Act or a federally enforceable term or condition of the permit.

b. For a change that qualifies under COMAR 26.11.03.19, the Permittee shall provide contemporaneous written notice to the Department and the EPA, except for a change to an emissions unit or activity that is exempt from the Part 70 permit application, as provided in COMAR 26.11.03.04. This written notice shall describe the change, including the date it was made, any change in emissions, including the pollutants emitted, and any new applicable requirements of the Clean Air Act that apply as a result of the change.

c. Upon satisfying the requirements of COMAR 26.11.03.19, the Permittee may make the proposed change.

d. The Permittee shall keep a record describing:

(1) Changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement of the Clean Air Act , but not otherwise regulated under this permit; and

(2) The emissions resulting from those changes.

e. Changes that qualify under COMAR 26.11.03.19 are not subject to the requirements for Part 70 revisions.

f. The Permittee shall include each off-permit change under COMAR 26.11.03.19 in the application for renewal of the part 70 permit.

g. The permit shield in COMAR 26.11.03.23 does not apply to off-permit changes made under COMAR 26.11.03.19.

h. The Permittee is subject to enforcement action if it is determined that an off-permit change made under COMAR 26.11.03.19 is not within the scope of this regulation.

## 16. ON-PERMIT CHANGES TO SOURCES

**[COMAR 26.11.03.18]**

The Permittee may make on-permit changes that are allowed under Section 502(b)(10) of the Clean Air Act as provided in COMAR 26.11.03.18 and in accordance with the following conditions:

a. The Permittee may make a change to this facility without obtaining a revision to this Part 70 permit if:

(1) The change is not a Title I modification;

(2) The change does not result in emissions in excess of those expressly allowed under the federally enforceable provisions of the Part 70 permit for the permitted facility or for an emissions unit within the facility, whether expressed as a rate of emissions or in terms of total emissions;

(3) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(4) The change does not violate an applicable requirement of the Clean Air Act;

(5) The change does not violate a federally enforceable permit term or condition related to monitoring, including test methods, record keeping, reporting, or compliance certification requirements;

(6) The change does not violate a federally enforceable permit term or condition limiting hours of operation, work practices, fuel usage, raw material usage, or production levels if the term or condition has been established to limit emissions allowable under this permit;

(7) If applicable, the change does not modify a federally enforceable provision of a compliance plan or schedule in this Part 70 permit unless the Department has approved the change in writing; and

(8) This permit does not expressly prohibit the change under COMAR 26.11.03.18.

b. The Permittee shall notify the Department and the EPA in writing of a proposed on-permit change under COMAR 26.11.03.18 not later than 7 days before the change is made. The written information shall include the following information:

(1) A description of the proposed change;

(2) The date on which the change is proposed to be made;

(3) Any change in emissions resulting from the change, including the pollutants emitted;

(4) Any new applicable requirement of the Clean Air Act; and

(5) Any permit term or condition that would no longer apply.

c. The responsible official of this facility shall certify in accordance with COMAR 26.11.02.02F that the proposed change meets the criteria for the use of on-permit changes under COMAR 26.11.03.18.

d. The Permittee shall attach a copy of each notice required by condition b. above to this Part 70 permit.

e. On-permit changes that qualify under COMAR 26.11.03.18 are not subject to the requirements for part 70 permit revisions.

f. Upon satisfying the requirements under COMAR 26.11.03.18, the Permittee may make the proposed change.

g. The permit shield in COMAR 26.11.03.23 does not apply to on-permit changes under COMAR 26.11.03.18.

h. The Permittee is subject to enforcement action if it is determined that an on-permit change made under COMAR 26.11.03.18 is not within the scope of the regulation or violates any requirement of the State air pollution control law.

## 17. FEE PAYMENT

**[COMAR 26.11.02.16A(2) & (5)(b)]**

a. The fee for this Part 70 permit is as prescribed in Regulation .19 of COMAR 26.11.02.

b. The fee is due on and shall be paid on or before each 12-month anniversary date of the permit.

c. Failure to pay the annual permit fee constitutes cause for revocation of the permit by the Department.

## 18. REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS

**[COMAR 26.11.02.09.]**

The Permittee 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:

a. New Source Review source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

b. Prevention of Significant Deterioration source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

c. New Source Performance Standard source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

d. National Emission Standards for Hazardous Air Pollutants source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

e. A stationary source of lead that discharges one ton per year or more of lead or lead compounds measured as elemental lead, permit to construct required, except for generating stations constructed by electric companies;

f. All stationary sources of air pollution, including installations and air pollution control equipment, except as listed in COMAR 26.11.02.10, permit to construct required;

g. In the event of a conflict between the applicability of (a.— e.) above and an exemption listed in COMAR 26.11.02.10, the provision that requires a permit applies.

h. Approval of a PSD or NSR source by the Department does not relieve the Permittee obtaining an approval from also obtaining all permits-to-construct required by (c.— g.) above.

## 19. CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION

**[COMAR 26.11.02.11C] and [COMAR 26.11.03.01K]**

The Permittee may request the Department to authorize special procedures for the Permittee to apply simultaneously, to the extent possible, for a permit to construct and a revision to this permit.

These procedures may provide for combined public notices, informational meetings, and public hearings for both permits but shall not adversely affect the rights of a person, including EPA and affected states, to obtain information about the application for a permit, to comment on an application, or to challenge a permit that is issued.

These procedures shall not alter any existing permit procedures or time frames.

## 20. PROPERTY RIGHTS

**[COMAR 26.11.03.06E(4)]**

This Part 70 permit does not convey any property rights of any sort, or any exclusive privileges.

## 21. SEVERABILITY

**[COMAR 26.11.03.06A(5)]**

If any portion of this Part 70 permit is challenged, or any term or condition deemed unenforceable, the remainder of the requirements of the permit continues to be valid.

## 22. INSPECTION AND ENTRY

**[COMAR 26.11.03.06G(3)]**

The Permittee shall allow employees and authorized representatives of the Department, the EPA, and local environmental health agencies, upon presentation of credentials or other documents as may be required by law, to:

a. Enter at a reasonable time without delay and without prior notification the Permittee's property where a Part 70 source is located, emissions-related activity is conducted, or records required by this permit are kept;

b. Have access to and make copies of records required by the permit;

c. Inspect all emissions units within the facility subject to the permit and all related monitoring systems, air pollution control equipment, and practices or operations regulated or required by the permit; and

d. Sample or monitor any substances or parameters at or related to the emissions units at the facility for the purpose of determining compliance with the permit.

## 23. DUTY TO PROVIDE INFORMATION

**[COMAR 26.11.03.06E(5)]**

The Permittee shall furnish to the Department, within a reasonable time specified by the Department, information requested in writing by the Department in order to determine whether the Permittee is in compliance with the federally enforceable conditions of this Part 70 permit, or whether cause exists for revising or revoking the permit. Upon request, the Permittee shall also furnish to the Department records required to be kept under the permit.

For information claimed by the Permittee to be confidential and therefore potentially not disclosable to the public, the Department may require the Permittee to provide a copy of the records directly to the EPA along with a claim of confidentiality.

The Permittee shall also furnish to the Department, within a reasonable time specified by the Department, information or records requested in writing by the Department in order to determine if the Permittee is in compliance with the State-only enforceable conditions of this permit.

## 24. COMPLIANCE REQUIREMENTS

**[COMAR 26.11.03.06E(1)] and [COMAR 26.11.03.06A(11)] and [COMAR 26.11.02.05]**

The Permittee shall comply with the conditions of this Part 70 permit. Noncompliance with the permit constitutes a violation of the Clean Air Act, and/or the Environment Article Title 2 of the Annotated Code of Maryland and may subject the Permittee to:

a. Enforcement action,

b. Permit revocation or revision,

c. Denial of the renewal of a Part 70 permit, or

d. Any combination of these actions.

The conditions in this Part 70 permit are enforceable by EPA and citizens under the Clean Air Act except for the State-only enforceable conditions.

Under Environment Article Section 2-609, Annotated Code of Maryland, the Department may seek immediate injunctive relief against a person who violates this permit in such a manner as to cause a threat to human health or the environment.

## 25. CREDIBLE EVIDENCE

Nothing in this permit shall be interpreted to preclude the use of credible evidence to demonstrate noncompliance with any term of this permit.

## 26. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

**[COMAR 26.11.03.06E(2)]**

The need to halt or reduce activity in order to comply with the conditions of this permit may not be used as a defense in an enforcement action.

## 27. CIRCUMVENTION

**[COMAR 26.11.01.06]**

The Permittee may not install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total weight of emissions, conceals or dilutes emissions which would otherwise constitute a violation of any applicable air pollution control regulation.

## 28. PERMIT SHIELD

**[COMAR 26.11.03.23]**

A permit shield as described in COMAR 26.11.03.23 shall apply only to terms and conditions in this Part 70 permit that have been specifically identified as covered by the permit shield. Neither this permit nor COMAR 26.11.03.23 alters the following:

a. The emergency order provisions in Section 303 of the Clean Air Act, including the authority of EPA under that section;

b. The liability of the Permittee for a violation of an applicable requirement of the Clean Air Act before or when this permit is issued or for a violation that continues after issuance;

c. The requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act;

d. The ability of the Department or EPA to obtain information from a source pursuant to Maryland law and Section 114 of the Clean Air Act; or

e. The authority of the Department to enforce an applicable requirement of the State air pollution control law that is not an applicable requirement of the Clean Air Act.

## 29. ALTERNATE OPERATING SCENARIOS

**[COMAR 26.11.03.06A(9)]**

For all alternate operating scenarios approved by the Department and contained within this permit, the Permittee, while changing from one approved scenario to another, shall contemporaneously record in a log maintained at the facility each scenario under which the emissions unit is operating and the date and time the scenario started and ended.

## SECTION III PLANT WIDE CONDITIONS

### 1. PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

**[COMAR 26.11.06.03D]**

The Permittee shall not cause or permit any building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

### 2. OPEN BURNING

**[COMAR 26.11.07]**

Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

### 3. AIR POLLUTION EPISODE

**[COMAR 26.11.05.04]**

When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating air pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

### 4. REPORT OF EXCESS EMISSIONS AND DEVIATIONS

**[COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)]**

The Permittee shall comply with the following conditions for occurrences of excess emissions and deviations from requirements of this permit, including those in Section VI – State-only Enforceable Conditions:

a. Report any deviation from permit requirements that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;

b. Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence;

c. When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;

d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.

e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

## 5. ACCIDENTAL RELEASE PROVISIONS

**[COMAR 26.11.03.03B(23)] and [40 CFR 68]**

Should the Permittee become subject to 40 CFR 68 during the term of this permit, the Permittee shall submit risk management plans by the date specified in 40 CFR 68.150 and shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

The Permittee shall initiate a permit revision or reopening according to the procedures of 40 CFR 70.7 to incorporate appropriate permit conditions into the Permittee's Part 70 permit.

## 6. GENERAL TESTING REQUIREMENTS

**[COMAR 26.11.01.04]**

The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with this Part 70 permit. The Department, at its option, may witness or conduct these tests. This testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

## 7. EMISSIONS TEST METHODS

**[COMAR 26.11.01.04]**

Compliance with the emissions standards and limitations in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

a. 40 CFR 60, appendix A

b. 40 CFR 51, appendix M

c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

## 8. EMISSIONS CERTIFICATION REPORT

**[COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and [COMAR 26.11.02.19D]**

The Permittee shall certify actual annual emissions of regulated pollutants from the facility on a calendar year basis.

a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;

b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:

(1) Familiar with each source for which the certifications forms are submitted, and

(2) Responsible for the accuracy of the emissions information;

c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:

(1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;

(2) 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;

(3) Amounts, types and analyses of all fuels used;

(4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;

(5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:

(a) Significant maintenance performed,
(b) Malfunctions and downtime, and
(c) Episodes of reduced efficiency of all equipment;

(6) Limitations on source operation or any work practice standards that significantly affect emissions; and

(7) Other relevant information as required by the Department.

## 9. COMPLIANCE CERTIFICATION REPORT

**[COMAR 26.11.03.06G(6) and (7)]**

The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each applicable standard, emissions limitation, and work practice for the previous calendar year by April 1 of each year.

a. The compliance certification shall include:

(1) The identification of each term or condition of this permit which is the basis of the certification;

(2) The compliance status;

(3) Whether the compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of each source, currently and over the reporting period; and

(5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.

b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

## 10. CERTIFICATION BY RESPONSIBLE OFFICIAL

**[COMAR 26.11.02.02F]**

All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a responsible official as to truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:

"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."

## 11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

**[COMAR 26.11.03.06C(5)]**

The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

a. The location as specified in this permit, and the date and time that samples and measurements are taken;

b. All pertinent operating conditions existing at the time that samples and measurements are taken;

c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;

d. The identity of the Permittee, individual, or other entity that performed the analysis;

e. The analytical techniques and methods used; and

f. The results of each analysis.

## 12. GENERAL RECORDKEEPING

**[COMAR 26.11.03.06C(6)]**

The Permittee shall retain records of all monitoring data and information that support the compliance certification for a period of five (5) years from the date that the monitoring, sample measurement, application, report or emissions test was completed or submitted to the Department.

These records and support information shall include:

a. All calibration and maintenance records;

b. All original data collected from continuous monitoring instrumentation;

c. Records which support the annual emissions certification; and

d. Copies of all reports required by this permit.

## 13. GENERAL CONFORMITY

**[COMAR 26.11.26.09]**

The Permittee shall comply with the general conformity requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09.

## 14. ASBESTOS PROVISIONS

**[40 CFR 61, Subpart M]**

The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

## 15. OZONE DEPLETING REGULATIONS

**[40 CFR 82, Subpart F]**

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

d. Persons performing maintenance, service, repairs or disposal of appliances shall certify with the Administrator pursuant to 40 CFR 82.162.

e. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.166.

f. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

g. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

## 16. ACID RAIN PERMIT

Not applicable

## SECTION IV PLANT SPECIFIC CONDITIONS

This section provides tables that include the emissions standards, emissions limitations, and work practices applicable to each emissions unit located at this facility. The Permittee shall comply with all applicable emissions standards, emissions limitations and work practices included herein.

The tables also include testing, monitoring, record keeping and reporting requirements specific to each emissions unit. In addition to the requirements included here in **Section IV**, the Permittee is also subject to the general testing, monitoring, record keeping, and reporting requirements included in **Section III – Plant Wide Conditions** of this permit.

Unless otherwise provided in the specific requirements for an emissions unit, the Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, all records that the Permittee is required under this section to establish. **[Reference: COMAR 26.11.03.06C(5)(g)]**

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| 1.0 | **Emissions Unit Number(s): S001, S002 & S003 – Combustion Turbines**<br><br>**S001, S002, & S003** – (009-5-0012, 009-5-0013, & 009-5-0014 formerly 009-9-0032 to 9-0034).<br>Three (3) natural gas-fired, simple-cycle General Electric Frame 3 combustion turbines (model MS3142), each with a nominal rating of 135.6 MMBTU/hr. – used to generate electricity.<br>**Controls:** Selective catalytic reduction (SCR) unit |
| 1.1 | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.09.05** - Visible Emissions.<br>"**A**. Fuel Burning Equipment.<br>(**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.<br>(**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:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period. " |

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| | B. Control of Particulate Matter Emissions<br>The GE Frame 3 natural gas-fired combustion turbines are subject to PM limit of 0.0066 lbs./MMBtu (filterable) of heat input. Each combustion turbine shall use natural gas as only fuel to meet the PM BACT requirements. **[Reference: PSD Approval #PSD-2002-1 issued 8/6/02].**<br><br>C. Control of Nitrogen Oxides<br>**COMAR 26.11.09.08G.** - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.<br>"(2) A person who owns or operates a combustion turbine with a capacity factor greater than 15 percent shall meet an hourly average $NO_x$ emission rate of not more than 42 ppm when burning gas or 65 ppm when burning fuel oil (dry volume at 15 percent oxygen) or meet applicable Prevention of Significant Deterioration limits, whichever is more restrictive. "<br><br>The GE Frame 3 natural gas-fired combustion turbines are subject to the $NO_x$ emission limit of 12 ppm of dry gas corrected to 15% $O_2$. Compliance with this emission limit shall be assessed on a 30-day rolling average. **[Reference: PSD Approval #PSD-2002-1 & NSR Approval #NSR-2002-01 issued 8/6/02].**<br><br>D. Control of Carbon Monoxide (CO) Emissions<br>The GE Frame 3 natural gas-fired combustion turbines are subject to the CO BACT emissions limit of 0.045 lbs./MMBtu of heat input assessed by CO stack emission tests. Each combustion turbine shall use natural gas as only fuel and operate within the appropriate ranges of good combustion operating parameters established during performance tests to meet the CO BACT requirements. **[Reference: PSD Approval #PSD-2002-1 issued 8/6/02]** |
| 1.2 | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall perform an EPA Reference Test Method 5, 40 CFR Part 60 Appendix A of the exhaust gases in the stacks of at least one of the combustion turbines at the import facility once during the term of the permit. The combustion turbine shall be operating at no less than 90% of its rated capacity during stack emissions testing. The Permittee shall alternate the |

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| | combustion turbines being tested. **[Reference: COMAR 26.11.03.06C]**<br><br>C. Control of Nitrogen Oxides<br>See Monitoring Requirements.<br><br>D. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall perform stack testing to demonstrate compliance with CO BACT emission limit in the exhaust gases of the stack of at least one of the Framer 3 combustion turbines once during the term of this permit. The combustion turbine shall be operating at no less than 90% of its rated capacity during stack emission testing. **[Permit to Construct #009-9-0032 to 9-0034 issued on 8/6/02 (modified on 4/1/05)]** |
| **1.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall continuously monitor the NOx emission of the stack gases using a NOx Continuous Emission Monitor (CEM) that is certified in accordance 40 CFR Part 60, Appendix B, or Part 75, Appendix A and meet the quality assurance criteria in 40 CFR Part 60, Appendix F. **[Reference: COMAR 26.11.09.08(B)(2)(b & c)]**<br><br>D. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]** |
| **1.4** | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall record any incidences of visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C].** |

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|---|---|
| | B. Control of Particulate Matter Emissions<br>The Permittee shall maintain the following on site for at least 5 years: records of stack testing results; record of the date, time and description of maintenance performed on the combustion turbines and shall submit records to the Department upon request. **[Reference: COMAR 26.11.03.06C]**<br><br>C. Control of Nitrogen Oxides<br>The following records shall be kept on the premises for at least 5 years and shall be made available to the Department upon request:<br>(a) The amount of natural gas burned in each combustion turbine, million BTU per month;<br>(b) The amount of chemical reagent usage for NOx emission control, pounds per month;<br>(c) All CEM system monitoring data, which are used to demonstrate compliance with the emission limits;<br>(d) All stack emissions test report;<br>(e) NOx emission rates, pounds per million BTU of heat input, for each combustion turbine;<br>(f) Monthly NOx emissions from each combustion turbine.<br>(g) All CEM certifications and calibration results; and<br>(h) The repairs and maintenance made to the SCR or oxidation catalyst emission control devices or the NOx CEM system.<br>**[Reference: MDE Permit to Construct #009-9-0032 to 9-0034 issued on 8/6/02 (modified on 4/1/05) and NSR Approval #NSR-2002-01 issued 8/6/02]**<br><br>D. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall maintain the following records on site for a period of at least 5 years:<br>(1) Plans with the appropriate ranges established for good combustion operating parameters to reduce CO emissions from the combustion turbines;<br>(2) The cause and time periods, except during start-up and shut-down phases, which the combustion turbines did not operate within the appropriate ranges of the good combustion operating parameters established for air emission reduction; and.<br>(3) Stack testing results and record of the date, time and description of maintenance performed on the combustion turbines<br>**[Reference: PSD Approval #PSD-2002-1 issued 8/6/02; COMAR 26.11.03.06C]** |
| **1.5** | **Reporting Requirements:** |

**Table IV – 1**

A. Control of Visible Emissions
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

B. Control of Particulate Matter Emissions
The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the stack tests to the Department within 60 days of completion of the tests. **[Reference: COMAR 26.11.03.06C]**

C. Control of Nitrogen Oxides
The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following:
(i) The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards;
(ii) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;
(iii) The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the validity of emission data;
(iv) Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter;
(v) Quarterly quality assurance activities; and
(vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and
(vii) Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation." **[Reference: COMAR 26.11.03.06C]**

CEM System Downtime Reporting Requirement: The Permittee shall report all system downtime, other than downtime generated from routine calibration failures, that lasts or is expected to last more than 24 hours to the Department by telephone or email before 10 a.m. of the first regular business day following the breakdown. The system breakdown report shall include the reason, if known, for the breakdown and the estimated period of time that the CEM will be down. The owner or operator of the CEM shall notify the Department by telephone when an out-of-service CEM is back in

| Table IV – 1 | |
|---|---|
| | operation and producing valid data. **[Reference: COMAR 26.11.03.06C]**<br><br>D. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the stack tests to the Department within 60 days of completion of the tests. The stack test reports shall include the following information:<br>(1) Emissions data including the pollutant concentration, gas volume, temperature, and oxygen content of the combustion exhaust gases leaving the exhaust stack;<br>(2) Hourly fuel usage rate of fuel consumed by the emission source during the testing period, million Btu/hr. and<br>(3) The operation procedures of good combustion practices.<br>**[Reference: MDE Permit to Construct #009-9-0032 to 9-0034 issued on 8/6/02 (modified on 4/1/05)]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above**

| Table IV – 2 | |
|---|---|
| **2.0** | **Emissions Unit Number(s): S004 - Vaporizers**<br><br>**S004** – (009-5-0016 through 009-5-0025).<br>Ten (10) T-Thermal (model HV-12049) natural gas-fired submerged combustion vaporizers (SCV), each with a rating of 72 MMBtu/hr., equipped with a water injection system.: – Used to vaporize LNG<br>S004-16 vaporizer (72 MM BTU/hr.)<br>S004-17 vaporizer (72 MM BTU/hr.)<br>S004-18 vaporizer (72 MM BTU/hr.)<br>S004-19 vaporizer (72 MM BTU/hr.)<br>S004-20 vaporizer (72 MM BTU/hr.)<br>S004-21 vaporizer (72 MM BTU/hr.)<br>S004-22 vaporizer (72 MM BTU/hr.)<br>S004-23 vaporizer (72 MM BTU/hr.)<br>S004-24 vaporizer (72 MM BTU/hr.)<br>S004-25 vaporizer (72 MM BTU/hr.)<br>**Controls:** Water injection system and air-to-fuel ratios. |
| **2.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions |

| | **Table IV – 2** |
|---|---|
| | **COMAR 26.11.09.05** - Visible Emissions.<br>"**A.** Fuel Burning Equipment.<br>(**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."<br>"(**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:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period. "<br><br>B. Control of Particulate Matter Emissions<br>The ten (10) natural gas-fired submerged combustion vaporizers (SCV) are subject to PM limitation from the ten vaporizers to 0.0076 lbs./MMBtu (filterable) of heat input. **[Reference: PSD Approval #PSD-2002-1 issued 8/6/02].**<br><br>C. Control of Nitrogen Oxides<br>**COMAR 26.11.09.08B.** - General Requirements and Conditions.<br>"(1) Emission Standards and Requirements.<br>(a) A person who owns or operates an installation that causes $NO_x$ emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation.<br>(b) Not Applicable.<br>(c) Emission Standards in Pounds of $NO_x$ per Million Btu of heat input. – Gas only: 0.2. "<br><br>The ten (10) natural gas fired SCV are subject to the $NO_x$ emission limit from the ten vaporizers of 0.0605 lb./MMBtu of heat input. **[Reference: PSD Approval #PSD-2002-1 issued 8/6/02].**<br><br>D. Control of Carbon Monoxide (CO) Emissions<br>The ten (10) natural gas-fired submerged combustion vaporizers (SCV) are subject to the CO BACT emissions limit of 0.16 lbs./MMBtu of heat input. Each vaporizer shall use natural gas as only fuel and operate within the appropriate ranges of good combustion operating parameters established during performance tests to meet the CO BACT requirements. **[Reference: PSD Approval #PSD-2002-1 issued 8/6/02]** |
| **2.2** | **Testing Requirements:** |

| Table IV – 2 | |
|---|---|
| | A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>See Monitoring Requirements.<br><br>C. Control of Nitrogen Oxides<br>See Monitoring Requirements.<br><br>D. Control of Carbon Monoxide (CO) Emissions<br>See Monitoring Requirements. |
| **2.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**<br>The Permittee shall operate each vaporizer, for normal operation (i.e., greater than 35% firing rate), with the water injection system to reduce NOx emissions. The water injection rate shall range from 7 to 22 gallons per hour (gph) per burner on a 3-hour block average established during the NOx emission testing. The Permittee shall monitor and record the water injection rate (gph) on a 3-hour block average when the vaporizer is operating. **[Reference: MDE Permit to Construct #009-5-0016 to 0025M issued 6/26/06, PSD Approval #PSD-2002-1, and NSR Approval #NSR-2002-01 issued on 8/6/02]**<br><br>D. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**<br>Each vaporizer burner shall use natural gas only and shall be operated at an air-to-natural gas (A/G) ratio of 10.75 or greater on a 3-hour block average (Good Combustion Practice Parameters) unless the Permittee has |

| Table IV – 2 | |
|---|---|
| | demonstrated to the Department's satisfaction that the vaporizers meet the CO limit of 0.16 lbs./MMBtu of heat input at a lower A/G value. **[Reference: COMAR 26.11.03.06C and PSD Approval #PSD-2002-1 issued 8/6/06]** Note: This condition does not apply to pilot lights. |
| 2.4 | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall record any incidences of visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C].**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall maintain a record of the date, time and description of maintenance performed on the vaporizers and shall submit records to the Department upon request. **[Reference: COMAR 26.11.03.06C]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall maintain the following records on-site for a period of at least five years:<br>(1) Monthly natural gas usage in millions BTU per month for each vaporizer;<br>(2) Water injection rate (gph) on a 3-hour block average to each burner to reduce $NO_x$ emissions from the vaporizers; and<br>(3) Monthly $NO_x$ emissions from each vaporizer.<br>(4) Record of the date, time and description of maintenance performed on the vaporizers and shall submit records to the Department upon request.<br>**[Reference: COMAR 26.11.03.06C, PSD Approval #PSD-2002-1, and NSR Approval #NSR-2002-01 issued 8/6/02]**<br><br>D. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall maintain the following records on-site for a period of at least five years:<br>(1) Air-to-gas ratio on a 3-hour block average;<br>(2) The plans with the appropriate ranges established for good combustion operating parameters to reduce CO emissions from the vaporizers; and<br>(3) The cause and time periods, except during start-up and shut-down phases, which the vaporizers did not operate within the appropriate ranges of the good combustion operating parameters established for CO emission reduction.<br>(4) Record of the date, time and description of maintenance performed on the vaporizers and shall submit records to the Department upon request.<br>**[Reference: COMAR 26.11.03.06C and PSD Approval #PSD-2002-1** |

| Table IV – 2 | |
|---|---|
| | **issued 8/6/06]** |
| **2.5** | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall submit records of maintenance performed on the vaporizers upon request. **[Reference: COMAR 26.11.03.06C]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall submit to the Department not later than 30 days following each calendar quarter a quarterly summary report. The report shall be in a format approved by the Department and shall include the following information for the water injection rate to each burner:<br>(a) Total operating time for each vaporizer during the quarter;<br>(b) The cause, time periods, and dates, and the magnitude of water flow faults except start-up and shut-down phases;<br>(c) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;<br>(d) The time periods and cause of all Combustion Monitoring System downtime including records of any repair, adjustment, or maintenance that may affect the validity of the water injection rate;<br>(e) Quarterly totals of water flow faults;<br>(f) General maintenance and repair activities conducted; and<br>(g) Monthly $NO_x$ emissions from each vaporizer.<br>**[Reference: COMAR 26.11.03.06C and MDE Permit to Construct #009-5-0016 through 5-0025M issued 6/26/06]**<br><br>D. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall submit to the Department not later than 30 days following each calendar quarter a quarterly summary report. The report shall be in a format approved by the Department and shall include the following information of the A/G ratio for each vaporizer:<br>(a) Total operating time for each vaporizer during the quarter;<br>(b) The cause, time periods, and dates, and the magnitude of non-compliance of the A/G ratio except start-up and shut-down phases;<br>(c) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was |

| Table IV – 2 | |
|---|---|
| | planned or unplanned;<br>(d) The time periods and cause of all Combustion Monitoring System downtime including records of any repair, adjustment, or maintenance that may affect the validity of A/G ratio;<br>(e) Quarterly totals of non-compliance of A/G ratio; and<br>(f) General maintenance and repair activities conducted.<br>**[Reference: COMAR 26.11.03.06C]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

| Table IV – 3 | |
|---|---|
| 3.0 | **Emissions Unit Number(s): S005, S006, S007 & S008 – Heaters & Boilers**<br><br>**S005** – (009-5-0015).<br>One (1) Black, Sivalls & Bryson (model 2500 SGIH) natural gas-fired LNG emergency vent heater rated at 2.32 MM BTU/hr.: – Used, under emergency conditions, to heat cold natural gas vapor for venting to the atmosphere<br>**Controls:** None<br><br>**S006** – (009-9-0022).<br>One (1) HEATEC (model HCI-6010-50G) natural gas-fired Liquefaction heater rated at 8.9 MM BTU/hr. – Used to supply heat for regenerating zeolite molecular sieve used for cleaning pipeline gas<br>**Controls:** None<br><br>**S007 & S008** – (009-5-0032 & 009-5-0033).<br>Two (2) Johnston Boiler Co. (PFTA-300-4-G) natural gas-fired packaged firetube hot water boilers, each with a rating of 12.3 MMBTU/hr. and equipped with low-$NO_x$ burner: – Used to heat water-glycol mixture to enable heat exchangers to heat natural gas for use at the facility.<br>**Controls:** None |
| 3.1 | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.09.05** - Visible Emissions.<br>"**A.** Fuel Burning Equipment.<br>(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 |

**Table IV – 3**

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. "

B. Control of Nitrogen Oxides
**COMAR 26.11.09.08B(5)** - Operator Training.
(a) "For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
(b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department."
**COMAR 26.11.09.08E**. - Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 Million Btu Per Hour or Less. "A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 Million Btu per hour or less shall:
(1) Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each; *(Already Completed)*
(2) Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis;
(3) Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request;
(4) Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
(5) Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request."

C. Operational Limits
CO/NOx/PM BACT Limitations: The BACT requirements include use of natural gas, good combustion practices, and installation of low $NO_x$ burners with flue gas re-circulation. **[Reference: MDE Permit to Construct Number 009-0021-5-0032 & 009-0021-5-0033 issued on 6/21/12]**

**For S007 & S008 only**
D. NSPS for PM and $SO_x$ Emissions

| Table IV – 3 | |
|---|---|
| | **40 CFR Part 60** Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units<br>**§60.40c** - Applicability and delegation of authority.<br>(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h). Since the heaters are fired on natural gas only, the record keeping and reporting requirements **§60.48c** apply. |
| 3.2 | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Nitrogen Oxides<br>See Monitoring Requirements.<br><br>C. Operational Limits<br>See Monitoring Requirements.<br><br>D. NSPS for PM and $SO_x$ Emissions<br>See Record Keeping Requirements. |
| 3.3 | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Nitrogen Oxides<br>The Permittee shall perform combustion analysis on the heaters and boilers at least once per year and optimize combustion based on the analysis. **[Reference: COMAR 26.11.09.08E(2)]**<br><br>C. Operational Limits<br>The Permittee shall monitor the amount of fuel used. **[Reference: COMAR 26.11.03.06C]**<br><br>D. NSPS for PM and $SO_x$ Emissions<br>See Record Keeping Requirements. |

| Table IV – 3 | |
|---|---|
| 3.4 | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall record incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.03.06C]**<br><br>B. Control of Nitrogen Oxides<br>The Permittee shall maintain the following records on-site for a period of at least five years:<br>(1) Training program attendance for each operator at the site and make these records available to the Department upon request.<br>(2) Results of combustion analysis.<br>**[Reference: COMAR 26.11.09.09E(3)&(5)]**<br><br>C. Operational Limits<br>The Permittee shall maintain records on-site for a period of at least five years and make available to the Department upon request: fuel combusted in million Btu per month and applicable operating/maintenance actions. **[Reference: COMAR 26.11.03.06C]**<br><br>D. NSPS for PM and $SO_x$ Emissions<br>**§60.48c** - Reporting and recordkeeping requirements.<br>"(g)(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only **natural gas**, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the $SO_2$ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to **record and maintain records of the amount of each fuel combusted during each calendar month**." |
| 3.5 | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Nitrogen Oxides<br>The Permittee shall submit:<br>(1) The results of combustion analysis to the department and the EPA upon |

| Table IV – 3 | |
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| | request. **[Reference: COMAR 26.11.09.08E(3)]**<br>(2) A record of training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08E(5)].**<br><br>C. Operational Limits<br>See Record Keeping Requirements.<br><br>D. NSPS for PM and $SO_x$ Emissions<br>See Record Keeping Requirements. |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

| Table IV – 4 | |
|---|---|
| **4.0** | **Emissions Unit Number(s): FL1-FL6**<br><br>**FL1-FL6** – (009-0021-9-0022)<br>Liquefaction equipment components (LEC) – Import Facility |
| **4.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.06.02C**. - Visible Emission.<br>"(**1**) In Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity.<br>**COMAR 26.11.06.02A**. - General Exceptions<br>(**2**) The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period. "<br><br>B. Control of VOC Emissions<br>**COMAR 26.11.06.06B**. - Control of VOC from Installations.<br>"(2) The following requirements apply in Calvert, Cecil, Charles, and Frederick counties:<br>(c) Installations Constructed On or After November 15, 1992. Except as provided in §E of this regulation, a person may not cause or permit the discharge of VOC from any installation constructed on or after November |

| Table IV – 4 | |
|---|---|
| | 15, 1992 in excess of 20 pounds (9.07 kilograms) per day unless the discharge is reduced by 85 percent or more overall. "<br><br>The VOC emissions are limited to 33.8 tons for any 12-month period rolling monthly for emission units associated with the 2002 re-activation project and the CPX expansion. The VOC emissions are limited to 48.7 tons for any 12-month period, rolling monthly, for the re-activation sources only. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06 & MDE Permit to Construct Number 009-0021-9-0022 issued on 8/8/11)].**<br><br>C. Operational Limits<br>The shutdown venting of refrigerant shall be limited to four (4) occurrences during any 12-month period, rolling monthly. The Permittee shall take all necessary precautions to prevent any unnecessary shutdown venting of refrigerant. **[Reference: MDE Permit to Construct Number 009-0021-9-0022 issued 8/8/11]** |
| **4.2** | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of VOC Emissions<br>See Monitoring Requirements.<br><br>C. Operational Limits<br>See Record Keeping Requirements. |
| **4.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of VOC Emissions<br>The Permittee shall continuously monitor the constituents of the refrigerant while the liquefaction unit is operating. The Permittee shall monitor the amount of isopentane added to the liquefier from the tanker storage. The Permittee shall monitor the leaks from flanges, connectors, valves, and seals associated with the liquefaction unit and shall repair each leak within 24 hours after it is detected. The Permittee shall utilize a flow meter to measure the amount of natural gas burned in the liquefaction heater. **[Reference: MDE Permit to Construct Number 009-0021-9-0022 issued 8/8/11 & COMAR 26.11.03.06C]** |

| Table IV – 4 | |
|---|---|
| | C. Operational Limits<br>See Record Keeping Requirements. |
| 4.4 | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall record incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.03.06C]**<br><br>B. Control of VOC Emissions<br>The Permit shall maintain on site for at least five years and make available to the Department upon request records of the following:<br>Amount of refrigerant added to the system and the date it was added.<br>For each VOC leak, the date of each leak being detected, the location of the leak, and the date of the leak was repaired.<br>For each shutdown venting of the refrigerant, the cause and date for each shutdown venting, and how much refrigerant and VOC emission was released to the atmosphere. **[Reference: MDE Permit to Construct #009-021-9-0022 issued 8/8/11]**<br><br>The Permit shall maintain on site for at least five years and make available to the Department upon request records of the following: premise-wide VOC emissions for any 12-month period, rolling monthly. **[Reference: MDE Permit to Construct #009-021-9-0022 issued 8/8/11 and NSR Approval #NSR-2005-01 issued 6/26/06]**<br><br>C. Operational Limits<br>The Permittee shall maintain records on-site for a period of at least five years and make available to the Department upon request: total number of shutdown venting occurrences for any 12-month period, rolling monthly. **[Reference: MDE Permit to Construct #009-021-9-0022 issued 8/8/11 & COMAR 26.11.03.06C]** |
| 4.5 | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]** |

| Table IV – 4 | |
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| | B. Control of VOC Emissions<br>The Permittee shall report incidents of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>The Permittee shall submit to the Department no later than 30 days following each calendar quarter a quarterly report. The report shall be in a format approved by the Department and shall include monthly VOC emission calculations. **[Reference: MDE Permit to Construct #009-0021-9-0022 issued on 8/8/11 & NSR Approval #NSR-2005-01 issued 6/26/06]**<br><br>C. Operational Limits<br>See Record Keeping Requirements. |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| Table IV – 5 | |
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| **5.0** | **Emissions Unit Number(s): S009 & S010 – Combustion Turbines**<br><br>**S009 & S010** – (009-5-0049 & 009-5-0050).<br>Two (2) General Electric Frame 5 Turbine natural gas-fired simple-cycle with a nominal rating of 302 MMBtu/hr. equipped with dry-low $NO_x$ combustion (DLN), SCR and oxidation catalyst (OC)<br>**Controls:** DLN, SCR and OC. |
| **5.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.09.05** - Visible Emissions.<br>"**A**. Fuel Burning Equipment.<br>(**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."<br>"(**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:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes |

**Table IV – 5**

in any sixty-minute period. "

B. Control of Particulate Matter Emissions
The GE Frame 5 natural gas-fired combustion turbines are subject to PM limit of 0.0066 lbs./MMBtu (filterable) of heat input. Each combustion turbine shall use natural gas as only fuel to meet the PM BACT requirements. **[Reference: PSD Approval #PSD-2005-01 issued 6/26/06].**

C. Control of Nitrogen Oxides
**COMAR 26.11.09.08G.** - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.
"**(2)** A person who owns or operates a combustion turbine with a capacity factor greater than 15 percent shall meet an hourly average $NO_x$ emission rate of not more than 42 ppm when burning gas or 65 ppm when burning fuel oil (dry volume at 15 percent oxygen) or meet applicable Prevention of Significant Deterioration limits, whichever is more restrictive. "

**40 CFR Part 60, Subpart KKKK** - Standards of Performance for Stationary Combustion Turbines for which Construction, Modification or Reconstruction commenced after February 18, 2005.
**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 ($SO_2$).
**§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 (4-hour rolling average) |
|---|---|---|
| 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). |

The GE Frame 5 natural gas-fired combustion turbines are subject to the $NO_x$ LAER requirements listed in the NSR-2005-01 and the $NO_x$ BACT requirements listed in the PSD-2005-1: $NO_x$ emission limit on a 1-hr average for each combustion turbine of 2.5 ppmvd corrected to 15% $O_2$ during baseload operating condition. "Baseload Operating Condition" is defined as the turbine operating condition where the dry low-$NO_x$ combustors function effectively at or about 73% load. **[Reference: PSD**

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|---|---|
| | **Approval #PSD-2005-01 & NSR Approval #NSR-2005-01 issued 6/26/06].**<br><br>D. Control of $SO_x$ Emissions<br>**§60.4330 - What emission limits must I meet for sulfur dioxide ($SO_2$)?**<br>(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.....<br>(1) You must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain $SO_2$ in excess of **110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb./MWh)) gross output.**<br>(2) You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of **26 ng $SO_2$/J (0.060 lb. $SO_2$/MMBtu) heat input**. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.<br><br>E. Import Control of VOC Emissions<br>The Frame 5 combustion turbines are subject to the VOC LAER requirements listed in the NSR Approval #NSR-2005-01: VOC limit of 0.003 lbs./MMBtu of heat input which shall be assessed by VOC stack emission tests. Each combustion turbine shall only use natural gas for fuel and shall be equipped with a catalytic oxidation system to comply with the VOC emission limit. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06].**<br><br>F. Control of Carbon Monoxide (CO) Emissions<br>The Frame 5 combustion turbines are subject to the CO BACT requirements listed in the PSD Approval #PSD-2005-1: CO emission limit is 6 ppmvd corrected to 15% $O_2$ assessed by CO stack emission tests. Each combustion turbine shall be equipped with a CO oxidation catalyst to comply with the CO BACT limit. **[Reference: PSD Approval #PSD-2005-01 issued 6/26/06]** |
| **5.2** | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall perform an EPA Reference Test Method 5, 40 CFR Part 60 Appendix A of the exhaust gases in the stacks of at least one of the combustion turbines at the import facility once during the term of the permit. During emission testing, the combustion turbine shall operate at 90% or |

| Table IV – 5 | |
|---|---|
| | higher of its rated capacity. The Permittee shall alternate the combustion turbines being tested. **[Reference: COMAR 26.11.03.06C & PSD Approval #PSD-2005-01 issued 6/26/06]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall conduct performance test for $NO_x$ in accordance with the methodologies specified in 40 CFR **§60.4340 & §60.4400.**<br>**§60.4340** - How do I demonstrate continuous compliance for $NO_x$ if I do not use water or steam injection?<br>"(**b**) As an alternative, you may install, calibrate, maintain and operate one of the following continuous monitoring systems:<br>(**1**) Continuous emission monitoring as described in §60.4335(b) and §60.4345."<br><br>D. Control of $SO_x$ Emissions<br>The Permittee shall conduct performance test for $SO_x$ in accordance with the methodologies specified in 40 CFR **§60.4415.**<br>Note: Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement.<br><br>E. Control of VOC Emissions<br>The Permittee shall perform stack testing to demonstrate compliance with VOC LAER emission limit in the exhaust gases of the stack of each of the combustion turbines once during the term of this permit. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06 & COMAR 26.11.03.06C]**<br><br>F. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall perform stack testing to demonstrate compliance with CO BACT emission limit in the exhaust gases of the stack of each of the Frame 5 combustion turbines once during the term of this permit. During emission testing, each combustion turbine shall operate at 90% or higher of its rated capacity. **[Reference: COMAR 26.11.03.06C & PSD Approval #PSD-2005-01 issued 6/26/06]** |
| **5.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]** |

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C. Control of Nitrogen Oxides

The Permittee shall continuously monitor the NOx emission of the stack gases using a NOx Continuous Emission Monitor (CEM) that is certified in accordance 40 CFR Part 60, Appendix B, or Part 75, Appendix A and meet the quality assurance criteria in 40 CFR Part 60, Appendix F. **[Reference: COMAR 26.11.09.08(B)(2)(b & c)]**

The Permittee shall demonstrate continuous compliance with NOx in accordance with 40 CFR **§60.4340** as follows:

"(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."

**§60.4345 - What are the requirements for the continuous emission monitoring system equipment, if I choose to use this option?**

"If the option to use a NOx CEMS is chosen:

(a) Each NOx diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in appendix B to this part, except the 7-day calibration drift is based on unit operating days, not calendar days. With state approval, Procedure 1 in appendix F to this part is not required. Alternatively, a NOx diluent CEMS that is installed and certified according to appendix A of part 75 of this chapter is acceptable for use under this subpart. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb./MMBtu basis.

(b) As specified in §60.13(e)(2), during each full unit operating hour, both the NOx monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NOx emission rate for the hour.

(c) Each fuel flow meter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with state approval, fuel flow meters that meet the installation, certification, and quality assurance requirements of appendix D to part 75 of this chapter are acceptable for use under this subpart.

(d) Each watt meter, steam flow meter, and each pressure or temperature measurement device shall be installed, calibrated, maintained, and operated according to manufacturer's instructions.

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(e) The owner or operator shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in paragraphs (a), (c), and (d) of this section. For the CEMS and fuel flow meters, the owner or operator may, with state approval, satisfy the requirements of this paragraph by implementing the QA program and plan described in section 1 of appendix B to part 75 of this chapter."

D. Control of $SO_x$ Emissions

**§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.

**§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 $SO_2$/J (0.060 lb. $SO_2$/MMBtu) heat input for units located in continental areas and 180 ng $SO_2$/J (0.42 lb. $SO_2$/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 $SO_2$ /J (0.060 lb. $SO_2$ /MMBtu) heat input for continental areas and has potential sulfur emissions of less than less than 180 ng $SO_2$ /J (0.42 lb. $SO_2$ /MMBtu) heat input for noncontinental areas."

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

| Table IV – 5 | |
|---|---|
| | "The frequency of determining the sulfur content of the fuel must be as follows:<br>(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 content value of the gaseous fuel must be determined and recorded once per unit operating day."<br>Note: The FERC Gas Tariff for Cove Point LNG requires gas delivered to Cove Point to have less than 25 grains of total sulfur per 100 $ft^3$ of natural gas. Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point to comply with this requirement. Monitoring is fulfilled by the tariff.<br><br>E. Control of VOC Emissions<br>The Permittee shall calculate monthly VOC emissions from each combustion turbine based on the monthly fuel usage and VOC emission rate, lbs./MMBtu of heat input, collected from the stack emission testing or any other method approved by the Department. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06 & COMAR 26.11.03.06C]**.<br><br>F. Control of Carbon Monoxide (CO) Emissions<br>See Table IV-16 for additional Monitoring Requirements (CAM). |
| **5.4** | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall record any incidences of visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C].**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall maintain the following on site for at least 5 years: records of stack testing results; record of the date, time and description of maintenance performed on the combustion turbines and shall submit records to the Department upon request. **[Reference: COMAR 26.11.03.06C].**<br><br>C. Control of Nitrogen Oxides<br>The following records shall be kept on the premises for at least 5 years and shall be made available to the Department upon request:<br>(a) The amount of natural gas burned in each combustion turbine, million BTU per month;<br>(b) The amount of chemical reagent usage for $NO_x$ emission control, |

| Table IV – 5 | |
|---|---|
| | pounds per month;<br>(c) All CEM system monitoring data, which are used to demonstrate compliance with the emission limits;<br>(d) All stack emissions test report;<br>(e) $NO_x$ emission rates, pounds per million BTU of heat input, for each combustion turbine;<br>(f) Monthly $NO_x$ emissions from each combustion turbine.<br>(g) All CEM certifications and calibration results; and<br>(h) The repairs and maintenance made to the SCR or oxidation catalyst emission control devices or the $NO_x$ CEM system.<br>**[Reference: MDE Permit to Construct #009-5-0049 & 5-0050 N issued on 8/6/02 (modified on 4/1/05) and NSR Approval #NSR-2005-01 issued 8/6/02]**<br><br>D. Control of $SO_x$ Emissions<br>The Permittee shall keep records of the sulfur content value of the gaseous fuel determined and recorded once per unit operating day. **[Reference: §60.4370 & COMAR 26.11.03.06C]**.<br>Note: Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement. Daily monitoring is not required due to the tariff.<br><br>E. Control of VOC Emissions<br>The Permittee shall keep records of monthly VOC emissions from each combustion turbine on the premises for at least 5 years and shall be made available to the Department upon request. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06]**<br><br>F. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall maintain records of the stack testing results on site for a period of at least 5 years and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** |
| **5.5** | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report |

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the results of the stack tests to the Department within 60 days of completion of the tests. **[Reference: COMAR 26.11.03.06C]**

C. Control of Nitrogen Oxides
The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following:
(i) The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards;
(ii) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;
(iii) The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the validity of emission data;
(iv) Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter;
(v) Quarterly quality assurance activities; and
(vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and
(vii) Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation." **[Reference: COMAR 26.11.03.06C]**

CEM System Downtime Reporting Requirement: The Permittee shall report all system downtime, other than downtime generated from routine calibration failures that lasts or is expected to last more than 24 hours to the Department by telephone or email before 10 a.m. of the first regular business day following the breakdown. The system breakdown report shall include the reason, if known, for the breakdown and the estimated period of time that the CEM will be down. The owner or operator of the CEM shall notify the Department by telephone when an out-of-service CEM is back in operation and producing valid data. **[Reference: COMAR 26.11.03.06C]**

D. Control of $SO_x$ Emissions
The Permittee shall maintain records based on the FERC Gas Tariff to comply with this requirement. The Permittee shall report records the Department upon request. **[Reference: COMAR 26.11.03.06C]**

E. Control of VOC Emissions
The Permittee shall submit to the Department no later than 30 days following each calendar quarter a quarterly report. The report shall be in a

| Table IV – 5 | |
|---|---|
| | format approved by the Department and shall include monthly VOC emission calculation from each combustion turbine. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06]**<br><br>F. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the stack tests to the Department within 60 days of completion of the tests. The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.03.06C & COMAR 26.11.01.07C]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

| Table IV – 6 | |
|---|---|
| 6.0 | **Emissions Unit Number(s): S011 through S017 - WEG Heaters**<br><br>**S011 through S017** – (009-5-0051 through 009-5-0057).<br>Seven (7) Johnston water-ethylene glycol (WEG) heaters, each with a rating of 82.3 MMBtu/hr., each equipped with ultra-low NOx burners (ULNB)<br>**Controls:** None |
| 6.1 | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.09.05** - Visible Emissions.<br>"**A.** Fuel Burning Equipment.<br>(**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.<br>(**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:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period. "<br><br>B. Control of Particulate Matter Emissions<br>The WEG heaters are subject to PM BACT requirements listed in PSD- |

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2005-1: PM emission limit is 0.001 lbs./MMBtu (filterable) of heat input, which shall be assessed by PM stack emission tests. Each vaporization heater shall only use natural gas for fuel to meet PM BACT requirements. **[Reference: PSD Approval #PSD-2005-1].**

C. Control of Nitrogen Oxides
**COMAR 26.11.09.08B**. General Requirements and Conditions.
(**1**) Emission Standards and Requirements.
(**a**) A person who owns or operates an installation that causes NOx emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation. (**c**) Emission Standards in Pounds of NOx per Million Btu of heat input. – Gas only: 0.2.

The WEG heaters are subject to the NOx LAER requirements listed in NSR Approval #NSR-2005-01 and the NOx BACT requirements listed in the PSD Approval #PSD-2005-01: NOx emission limit is 0.012 lbs./MMBtu of heat input which shall be assessed by NOx stack emission tests. Each of the seven-vaporization heater shall only use natural gas for fuel and shall be equipped with ultra-low NOx burners to comply with the NOx emission limits. **[Reference: NSR Approval #NSR-2005-01 & PSD Approval #PSD-2005-01 issued 6/26/06].**

D. Control of VOC Emissions
The WEG heaters are subject to the VOC LAER emissions limitations as listed in NSR-2005-01: VOC emission limit is 0.002 lbs./MMBtu of heat input. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06].**

E. Control of Carbon Monoxide (CO) Emissions
The WEG heaters are subject to the CO BACT requirements listed in the PSD Approval #PSD-2005-01: CO emission limit is 0.03 lbs./MMBtu of heat input, assessed by CO stack emission tests. Each vaporization heater shall only use natural gas for fuel and shall operate within the appropriate ranges of good operating parameters established during performance tests to meet the CO BACT requirements. **[Reference: PSD Approval #PSD-2005-01 issued 6/26/06]**

F. NSPS for PM and SOx Emissions
**40 CFR Part 60** Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
**§60.40c** - Applicability and delegation of authority.
(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit

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|---|---|
| | for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h). Since the heaters are fired on natural gas only, the record keeping and reporting requirements **§60.48c** apply. |
| **6.2** | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>See Monitoring Requirements.<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis. **[Reference: COMAR 26.11.03.06C]**<br><br>D. Control of VOC Emissions<br>See Monitoring Requirements.<br><br>E. Control of Carbon Monoxide (CO) Emissions<br>See Monitoring Requirements.<br><br>F. NSPS for PM and $SO_x$ Emissions<br>See Record Keeping Requirements. |
| **6.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]** |

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|---|---|
| | D. Control of VOC Emissions<br>The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**<br><br>E. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**<br><br>F. NSPS for PM and $SO_x$ Emissions<br>See Record keeping Requirements |
| 6.4 | **Record Keeping Requirements:**<br>**Note**:<br>All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall record any incidences of visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C].**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall maintain a record of the date, time and description of maintenance performed on the WEG heaters and shall submit records to the Department upon request. **[Reference: COMAR 26.11.03.06C]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall maintain the following records on-site for a period of at least five years and make available to the Department upon request:<br>(1) Monthly natural gas usage in millions BTU per month for each WEG heater.<br>(2) $NO_x$ emission rates, lbs./MMBtu of heat input for each WEG heater.<br>(3) Monthly $NO_x$ emissions from each WEG heater.<br>(4) Record of the stack test results.<br>(5) Record of the date, time and description of maintenance performed on the WEG heaters and shall submit records to the Department upon request<br>**[Reference: MDE Permit to Construct No. 009-5-0051 to 0057N issued 6/26/06; COMAR 26.11.03.06C]** |

| Table IV – 6 | |
|---|---|
| | D. Control of VOC Emissions<br>The Permittee shall maintain for at least 5 years the following: records of lb./MMBtu VOC emission rates from each WEG heater; and record of the date, time and description of maintenance performed on the WEG heaters and shall submit records to the Department upon request. **[Reference: COMAR 26.11.03.06C & NSR Approval #NSR-2005-01 issued 6/26/06]**<br><br>E. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall maintain a record of the date, time and description of maintenance performed on the WEG heaters and shall submit records to the Department upon request. **[Reference: COMAR 26.11.03.06C]**<br><br>F. NSPS for PM and $SO_x$ Emissions<br>**§60.48c** - Reporting and recordkeeping requirements.<br>"(g)(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only **natural gas**, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the $SO_2$ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to **record and maintain records of the amount of each fuel combusted during each calendar month**." |
| **6.5** | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall submit records of maintenance performed on the WEG heaters upon request. **[Reference: COMAR 26.11.03.06C]**<br><br>C. Control of Nitrogen Oxides<br>See Record Keeping Requirements<br><br>D. Control of VOC Emissions<br>See Record Keeping Requirements.<br><br>E. Control of Carbon Monoxide (CO) Emissions<br>See Record Keeping Requirements.<br><br>F. NSPS for PM and $SO_x$ Emissions |

| Table IV – 6 | |
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| | See Record Keeping Requirements. |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| Table IV – 7 | |
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| **7.0** | **Emissions Unit Number(s): S018 – Heaters**<br><br>**S018** – (009-5-0058).<br>One (1) emergency vent heater rated at 1.3 MMBtu/hr. equipped with low-NOx burners (LNB).<br>**Controls:** None |
| **7.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.09.05** - Visible Emissions.<br>"**A**. Fuel Burning Equipment.<br>(**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."<br>"(**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:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period. "<br><br>B. Control of Particulate Matter Emissions<br>The emergency vent heater is subject to the PM BACT requirements listed in the PSD Approval #PSD-2005-01: PM emission limit of 0.008 lbs./MMBtu (filterable) of heat input. Compliance to be achieved by use of natural gas as fuel and good combustion practices. **[Reference: PSD Approval #PSD-2005-01 issued 6/26/06)]**<br><br>C. Control of Nitrogen Oxides<br>**COMAR 26.11.09.08B**. General Requirements and Conditions.<br>(**1**) Emission Standards and Requirements.<br>(**a**) A person who owns or operates an installation that causes NOx emissions subject to this regulation is in compliance with this regulation if |

| Table IV – 7 | |
|---|---|
| | the person establishes compliance with the emissions standards in §B(1)(c) of this regulation. (**c**) Emission Standards in Pounds of $NO_x$ per Million Btu of heat input. – Gas only: 0.2. "<br><br>The emergency vent heater must also meet the BACT and LAER requirements as set forth in PSD-2005-01 and NSR-2005-01; $NO_x$ emission limit of 0.036 lbs./MMBtu of heat input on a 3-hour average basis. Compliance to be achieved by use of natural gas as fuel, low $NO_x$ burner and good combustion practices **[Reference: NSR Approval #NSR-2005-01 & PSD Approval #PSD-2005-01 issued 6/26/06)]**<br><br>D. Control of VOC Emissions<br>The emergency vent heater is subject to the VOC LAER emissions limit listed in the NSR Approval #NSR-2005-01: VOC emissions limit of 0.0054 lbs./MMBtu on a 3-hour average basis. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06)].**<br><br>E. Control of Carbon Monoxide Emissions<br>The emergency vent heater is subject to the CO BACT requirements listed in the PSD Approval #PSD-2005-01: CO emissions limit of 0.082 lbs./MMBtu. Compliance to be achieved by use of natural gas as fuel and good combustion practices. **[Reference: PSD Approval #PSD-2005-01 issued 6/26/06)]** |
| **7.2** | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>See Reporting Requirements.<br><br>C. Control of Nitrogen Oxides<br>See Reporting Requirements.<br><br>D. Control of VOC Emissions<br>See Record Keeping Requirements.<br><br>E. Control of Carbon Monoxide Emissions<br>See Reporting Requirements. |
| **7.3** | **Monitoring Requirements:** |

| Table IV – 7 | |
|---|---|
| | A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>See Reporting Requirements.<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**<br><br>D. Control of VOC Emissions<br>See Record Keeping Requirements.<br><br>E. Control of Carbon Monoxide Emissions<br>See Reporting Requirements |
| 7.4 | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall keep record of incidences of visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C]**<br><br>B. Control of Particulate Matter Emissions<br>See Reporting Requirements.<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall maintain the following records on-site for a period of at least five years and make available to the Department upon request:<br>(1) Monthly natural gas usage in millions BTU per month for the emergency vent heater.<br>(2) NOx emission rates, lbs./MMBtu of heat input for the emergency vent heater.<br>(3) Record of stack test results<br>(4) Record of the date, time and description of maintenance performed on the emergency vent heater and shall submit records to the Department upon request<br>**[Reference: COMAR 26.11.03.06C; MDE Permit to Construct No. 009-5-0058N issued 6/26/06 and NSR Approval #NSR-2005-01 issued 06/26/06]** |

| Table IV – 7 | |
|---|---|
| | D. Control of VOC Emissions<br>The Permittee shall maintain the following records on-site for a period of at least five years and make available to the Department upon request:<br>(1) Monthly VOC emissions from the emergency vent heater based on the monthly natural gas usage.<br>(2) VOC emission rates, lbs./MMBtu of heat input for the emergency vent heater based on vendor data or any other method approved by the Department.<br>**[Reference: MDE Permit to Construct #009-5-0058N issued 06/26/06 and NSR Approval #NSR-2005-01 issued 06/26/06]**<br><br>E. Control of Carbon Monoxide Emissions<br>See Reporting Requirements |
| **7.5** | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>C. Control of Nitrogen Oxides<br>See Record Keeping Requirements.<br><br>D. Control of VOC Emissions<br>See Record Keeping Requirements.<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

| Table IV – 8 | |
|---|---|
| **8.0** | **Emissions Unit Number(s): S019 & S020 – Emergency Engines**<br><br>**S019 & S020** – (009-9-0071 & 009-9-0072).<br>Two (2) natural gas-fired emergency generators, each with a rating of 1175 hp (825 kW).<br>**Controls:** None |
| **8.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.09.05** - Visible Emissions.<br>**E**. Stationary Internal Combustion Engine Powered Equipment.<br>"(**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.<br>(**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.<br>(**4**) Exceptions.<br>(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.<br>(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:<br>(i) Engines that are idled continuously when not in service: 30 minutes;<br>(ii) All other engines: 15 minutes.<br>(c) Section E(2) and (3) of this regulation do not apply while maintenance, repair, or testing is being performed by qualified mechanics. "<br><br>B. Control of Particulate Matter Emissions<br>The emergency generators are subject to PM BACT emission standards as listed in PSD-2005-01: PM emissions limit of 0.12 lb./kW-hr (filterable) to be achieved by natural gas only and a limit on operations to no more than 200 hours each during any consecutive 12-month period. **[Reference: PSD Approval #PSD-2005-1 issued on 6/26/06)].**<br><br>C. Control of Nitrogen Oxides<br>The Permittee is subject to the $NO_x$ BACT and LAER emission standards listed in the PSD-2005-01 and NSR-2005-01: $NO_x$ emission limit of 2.0 g/bhp-hr. (6.3 lb./kW-hr) on a 3-hour average basis. Compliance achieved by good combustion practices; proper operation and maintenance plan; and a limit on operations of no more than 200 hours each during any |

| Table IV – 8 | |
|---|---|
| | consecutive 12-month period. **[Reference: PSD Approval #PSD-2005-1 & NSR Approval #NSR-2005-01 issued on 6/26/06)].**<br><br>D. Control of VOC Emissions<br>The emergency generators are subject to VOC LAER limit as listed in NSR Approval #NSR-2005-01: VOC emissions limit of 2.35 lb./kW-hr on a 3-hour average basis. Each generator shall not operate more than 200 hours for any 12-month period, rolling monthly. **[Reference: NSR Approval #NSR-2005-01 issued on 6/26/06)].**<br><br>E. Control of Carbon Monoxide Emissions<br>The emergency generators are subject to the CO BACT requirements listed in the PSD Approval #PSD-2005-01: CO emissions limit of 5.45 lb./kW-hr to be achieved by natural gas only and a limit on operations to no more than 200 hours each during any consecutive 12-month period. **[Reference: PSD Approval #PSD-2005-01 issued on 6/26/06)].** |
| **8.2** | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>See Record Keeping Requirements.<br><br>C. Control of Nitrogen Oxides<br>See Monitoring Requirements.<br><br>D. Control of VOC Emissions<br>See Monitoring Requirements.<br><br>E. Control of Carbon Monoxide Emissions<br>See Record Keeping Requirements. |
| **8.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>See Record Keeping Requirements. |

| Table IV – 8 | |
|---|---|
| | C. Control of Nitrogen Oxides<br>The Permittee shall calculate monthly $NO_x$ emissions from the natural gas fired emergency generators based on the monthly natural gas usage (or monthly operating hours) and the $NO_x$ emission rate, pounds per hour, based upon vendor guarantees. **[Reference: NSR Approval NSR-2005-01 issued 6/26/2006]**<br><br>D. Control of VOC Emissions<br>The Permittee shall calculate monthly VOC emissions from the natural gas fired emergency generators based on the monthly natural gas usage (or monthly operating hours) and the VOC emission rate, pounds per hour, based upon vendor guarantees. **[Reference: NSR Approval NSR-2005-01 issued 6/26/2006]**<br><br>E. Control of Carbon Monoxide Emissions<br>See Record Keeping Requirements. |
| 8.4 | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall keep records of incidences of visible emissions and corrective actions. **[Reference: COMAR 26.11.03.06C]**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall maintain records of the hours of operation for the generators on site and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C & PSD Approval #PSD-2005-01 issued 6/26/06]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall maintain records of the following for each emergency generator: monthly natural gas usage or hours of operation; $NO_x$ emission rates, and annual operating hours on site for at least five years and make available to the Department upon request. **[Reference: NSR Approval #NSR-2005-01 & PSD Approval #PSD-2005-01 issued 6/26/06 & COMAR 26.11.03.06C]**<br><br>D. Control of VOC Emissions<br>The Permit shall maintain records of monthly natural gas usage in million Btu per month or monthly operating hours, for each natural gas fired |

| Table IV – 8 | |
|---|---|
| | emergency generator on site and make available to the Department upon request. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06& COMAR 26.11.03.06C]**<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee shall maintain records of the hours of operation for the generators on site and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C & PSD Approval #PSD-2005-01 issued 6/26/06]** |
| 8.5 | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>C. Control of Nitrogen Oxides<br>See Record Keeping Requirements<br><br>D. Control of VOC Emissions<br>See Record Keeping Requirements.<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| Table IV – 9 | |
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| 9.0 | **Emissions Unit Number(s): S001 through S020, & FL1-FL6: Premise-wide**<br>**Reactivation**<br>**S001, S002, & S003** – (009-5-0012, 009-5-0013, & 009-5-0014 formerly |

| Table IV – 9 | |
|---|---|
| | 009-9-0032 to 9-0034).<br>Three (3) natural gas-fired, simple-cycle General Electric Frame 3 combustion turbines (model MS3142), each with a nominal rating of 135.6 MMBTU/hr. – used to generate electricity.<br><br>**S004** – (009-5-0016 through 009-5-0025).<br>Ten (10) T-Thermal (model HV-12049) natural gas-fired submerged combustion vaporizers (SCV), each with a rating of 72 MMBtu/hr., equipped with a water injection system.: – Used to vaporize LNG.<br><br>**S005** – (009-5-0015).<br>One (1) Black, Sivalls & Bryson (model 2500 SGIH) natural gas-fired LNG emergency vent heater rated at 2.32 MM BTU/hr.: – Used, under emergency conditions, to heat cold natural gas vapor for venting to the atmosphere<br><br>**S006** – (009-9-0022).<br>One (1) HEATEC (model HCI-6010-50G) natural gas-fired Liquefaction heater rated at 8.9 MM BTU/hr. – Used to supply heat for regenerating zeolite molecular sieve used for cleaning pipeline gas.<br><br>**S007 & S008** – (009-5-0032 & 009-5-0033).<br>Two (2) Johnston Boiler Co. (PFTA-300-4-G) natural gas-fired packaged fire tube hot water boilers, each with a rating of 12.3 MMBTU/hr. and equipped with low-$NO_x$ burner: – Used to heat water-glycol mixture to enable heat exchangers to heat natural gas for use at the facility.<br><br>**FL1-FL6** – (009-0021-9-0022)<br>Liquefaction equipment components (LEC) – Import Facility<br><br>**Cove Point Expansion (CPX)**<br>**S009 & S010** – (009-5-0049 & 009-5-0050).<br>Two (2) General Electric Frame 5 Turbine natural gas-fired simple-cycle with a nominal rating of 302 MMBtu/hr. equipped with dry-low $NO_x$ combustion (DLN), SCR and oxidation catalyst (OC)<br><br>**S011 through S017** – (009-5-0051 through 009-5-0057).<br>Seven (7) Johnston water-ethylene glycol (WEG) heaters, each with a rating of 82.3 MMBtu/hr., each equipped with ultra-low $NO_x$ burners (ULNB)<br><br>**S018** – (009-5-0058).<br>One (1) emergency vent heater rated at 1.3 MMBtu/hr. equipped with low-$NO_x$ burners (LNB). |

| Table IV – 9 | |
|---|---|
| | **S019 & S020** – (009-9-0071 & 009-9-0072).<br>Two (2) natural gas-fired emergency generators, each with a rating of 1175 hp (825 kW). |
| 9.1 | **Applicable Standards/Limits:**<br><br>A. Control of VOC Emissions<br>The VOC emissions are limited to 48.7 tons for any 12-month period rolling monthly for emission units associated with the 2002 re-activation project and the CPX expansion. The VOC emissions are limited to 33.8 tons for any 12-month period, rolling monthly, for the re-activation sources only. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06 & MDE Permit to Construct Number 009-9-0032 to 9-0034 issued on 8/6/02 (modified on 4/1/05) & MDE Permit to Construct Number 009-0021-5-0032 & 009-0021-5-0033 issued on 6/21/12)].**<br><br>B. Control of Nitrogen Oxides<br>The NOx emissions are limited to 337.6 tons for any 12-month period rolling monthly for emission units associated with 2002 re-activation project and the CPX expansion. **[Reference: NSR Approval #NSR-2005-01 issued on 6/26/06)].**<br><br>**For EU-S001 through S008, FL1-FFL6 only**<br>The NSR premises-wide NOx emissions are limited to 278.8 tons for any 12-month period rolling monthly for emission units associated with 2002 re-activation project. **[Reference: NSR Approval #NSR-2002-01 issued on 8/6/02)].** |
| 9.2 | **Testing Requirements:**<br><br>A. Control of VOC Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Nitrogen Oxides<br>See Record Keeping Requirements. |
| 9.3 | **Monitoring Requirements:**<br><br>A. Control of VOC Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Nitrogen Oxides |

| Table IV – 9 | |
|---|---|
| | See Record Keeping Requirements. |
| 9.4 | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of VOC Emissions<br>The Permit shall maintain records of premise-wide VOC emissions (from combustion turbines, vaporizers) for any 12-month period, rolling monthly on site for at least 5 years and make available to the Department upon request. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06]**<br><br>B. Control of Nitrogen Oxides<br>The Permittee shall maintain records for the Expansion project premise-wide NOx emissions for any 12-month period, rolling monthly on site and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**<br><br>**For EU-S001 through S008, FL1-FFL6 only**<br>The Permittee shall maintain records of premise-wide NOx emissions for any 12-month period, rolling monthly on site and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**<br><br>The Permittee shall maintain monthly natural gas usage, million BTU per month, and monthly NOx emissions from the liquefaction heater and each boiler on site for at least 5 years and shall make it available to the Department upon request. **[PSD Approval #PSD-2002-1 and NSR Approval #NSR-2002-01 issued on 8/6/02]** |
| 9.5 | **Reporting Requirements:**<br><br>A. Control of VOC Emissions<br>The Permittee shall submit to the Department no later than 30 days following each calendar quarter a quarterly report. The report shall be in a format approved by the Department and shall include monthly and rolling 12-month VOC emission calculated from each combustion turbine, each vaporizer, each emergency vent heater and each emergency generator. **[Reference: COMAR 26.11.03.06C & NSR Approval #NSR-2005-01 issued 6/26/06]**<br><br>B. Control of Nitrogen Oxides<br>The Permittee shall submit to the Department not later than 30 days following each calendar quarter a quarterly summary report. The report |

| Table IV – 9 | |
|---|---|
| | shall be in a format approved by the Department and shall include the following:<br>(a) Expansion project $NO_x$ emissions for each calendar month and each rolling 12-month period for the previous calendar quarter.<br>(b) The cause, time periods, except start-up and shut-down phases, and magnitude of all emissions which exceed the applicable standards.<br>(c) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned for the following emission units: S001 thru S004, S009 & S010, and S011 thru S017.<br>(d) Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this requirement. **[Reference: COMAR 26.11.03.06C & NSR Approval #NSR-2005-01 issued 6/26/06]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| Table IV – 10 | |
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| **10.0** | **Emissions Unit Number(s): S021 – Combustion Turbine**<br><br>**S021** – (009-5-0065)<br>One (1) natural gas-fired, Solar Titan turbine with nominal rating of 137 MMBtu/hr. equipped with DLN combustors, SCR, and oxidation catalyst.<br>**Controls:** DLN, SCR and OC |
| **10.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.09.05** - Visible Emissions.<br>"**A.** Fuel Burning Equipment.<br>(**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."<br>"(**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:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period. " |

**Table IV – 10**

B. Control of Particulate Matter Emissions
The Solar combustion turbine is subject to $PM_{10}$ BACT requirements listed in the CPCN Case No. 9055 Licensing Conditions: $PM_{10}$ emission limit of 0.0066 lbs./MMBtu on a 3-hour average basis (filterable and condensable) to be achieved by exclusive use of pipeline quality, low sulfur natural gas. **[Reference: CPCN Case No. 9055, issued 8/15/06].**

C. Control of Nitrogen Oxides
**COMAR 26.11.09.08G.** - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.
"(2) A person who owns or operates a combustion turbine with a capacity factor greater than 15 percent shall meet an hourly average $NO_X$ emission rate of not more than 42 ppm when burning gas or 65 ppm when burning fuel oil (dry volume at 15 percent oxygen) or meet applicable Prevention of Significant Deterioration limits, whichever is more restrictive. "

**40 CFR Part 60, Subpart KKKK** - Standards of Performance for Stationary Combustion Turbines for which Construction, Modification or Reconstruction commenced after February 18, 2005.
**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 ($SO_2$).
**§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 (4-hour rolling average) |
|---|---|---|
| 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). |

The Solar combustion turbine is subject to the $NO_X$ LAER requirements and the $NO_X$ BACT requirements listed in the CPCN Case No. 9055: $NO_X$ emission limit of 5.0 ppmvd corrected to 15% oxygen on a 1-hour average basis during base-load operating conditions to be achieved by exclusive use of pipeline quality, low sulfur natural gas; low-$NO_X$ combustion design

| Table IV – 10 | |
|---|---|
| | and operation of selective catalytic reduction system.<br>Emissions are subject to startup and shutdown conditions as listed in the same permit: $NO_X$ emissions are limited to 12.8 tons for any 12-month period rolling monthly for emission units associated with the ASU project **[Reference: CPCN Case No. 9055 issued 8/15/06].**<br>*"Baseload operating conditions" is defined as the turbine operating condition where the dry low-$NO_X$ combustors functions effectively at or above 50% load.*<br><br>D. Control of $SO_X$ Emissions<br>**§60.4330 - What emission limits must I meet for sulfur dioxide ($SO_2$)?**<br>"(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. …<br>(1) You must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain $SO_2$ in excess of **110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb./MWh)) gross output.**<br>(2) You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of **26 ng $SO_2$/J (0.060 lb. $SO_2$/MMBtu) heat input**. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement. "<br><br>E. Control of VOC Emissions<br>The Solar combustion turbine is subject to the VOC LAER requirements listed in the CPCN Case No. 9055: VOC emission limit of 0.7 lb./hr. on a 3-hour average basis at loads of 75% or greater and 0.6 lbs./hr. on a 3-hour average basis at loads less than 75%.<br>Emissions are subject to startup and shutdown conditions as listed in the same permit: VOC emissions are limited to 3.7 tons for any 12-month period rolling monthly for emission units associated with the ASU project. **[Reference: CPCN Case No. 9055 issued 8/15/06].**<br><br>F. Control of Carbon Monoxide (CO) Emissions<br>The Solar combustion turbine is subject to the CO BACT requirements listed in the CPCN Case No. 9055 Licensing Conditions: CO emission limit of 6.0 ppmvd corrected to 15% oxygen on a 3-hour average basis to be achieved by use of good combustion practices and operation of oxidation catalyst system. **[Reference: CPCN Case No. 9055 issued 8/15/06]** |
| **10.2** | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements. |

| Table IV – 10 | |
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| | B. Control of Particulate Matter Emissions<br>The Permittee shall perform stack testing to demonstrate compliance with PM emission limit in the exhaust gases of the stack of at least one of the combustion turbines at the import facility once during the term of this permit. During the stack emission testing, the combustion turbine shall be operating at 90% or higher of its rated capacity. **[Reference: CPCN Case No. 9055 issued 8/15/06 & COMAR 26.11.03.06C]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall conduct performance test for NOx in accordance with the methodologies specified in 40 CFR **§60.4340 & §60.4400.**<br>**§60.4340** - How do I demonstrate continuous compliance for NOx if I do not use water or steam injection?<br>"(**b**) As an alternative, you may install, calibrate, maintain and operate one of the following continuous monitoring systems:<br>(**1**) Continuous emission monitoring as described in §60.4335(b) and §60.4345."<br><br>D. Control of SOx Emissions<br>The Permittee shall conduct performance test for SOx in accordance with the methodologies specified in 40 CFR **§60.4415.**<br>Note: Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement. Performance tests are satisfied by the tariff.<br><br>E. Control of VOC Emissions<br>The Permittee shall perform stack testing to demonstrate compliance with VOC emission limit in the exhaust gases of the stack of the combustion turbine once during the term of this permit. During the stack emission testing, the combustion turbine shall be operating at 90% or higher of its rated capacity. **[Reference: CPCN Case No. 9055 issued 8/15/06 & COMAR 26.11.03.06C]**<br><br>F. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall perform stack testing to demonstrate compliance with CO BACT emission limit in the exhaust gases of the stack of the combustion turbine once during the term of this permit. During the stack emission testing, the combustion turbine shall be operating at 90% or higher of its rated capacity. **[Reference: CPCN Case No. 9055 issued 8/15/06 & COMAR 26.11.05.06C]** |
| **10.3** | **Monitoring Requirements:** |

**Table IV – 10**

A. Control of Visible Emissions
See Record Keeping Requirements.

B. Control of Particulate Matter Emissions
The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**

C. Control of Nitrogen Oxides
The Permittee shall continuously monitor the $NO_x$ emission of the stack gases using a $NO_x$ Continuous Emission Monitor (CEM) that is certified in accordance 40 CFR Part 60, Appendix B, or Part 75, Appendix A and meet the quality assurance criteria in 40 CFR Part 60, Appendix F. **[Reference: COMAR 26.11.09.08(B)(2)(b &c)]**

The Permittee shall demonstrate continuous compliance with $NO_x$ in accordance with 40 CFR **§60.4340** as follows:
"(**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."

D. Control of $SO_x$ Emissions
**§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.

**§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 $SO_2$/J (0.060 lb. $SO_2$/MMBtu) heat input for units located in continental areas and 180 ng $SO_2$/J (0.42 lb. $SO_2$/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

| Table IV – 10 | |
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| | benefit. You must use one of the following sources of information to make the required demonstration:<br>(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 $SO_2$ /J (0.060 lb. $SO_2$ /MMBtu) heat input for continental areas and has potential sulfur emissions of less than less than 180 ng $SO_2$ /J (0.42 lb. $SO_2$ /MMBtu) heat input for noncontinental areas."<br><br>**§60.4370 - How often must I determine the sulfur content of the fuel?**<br>"The frequency of determining the sulfur content of the fuel must be as follows:<br>(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 content value of the gaseous fuel must be determined and recorded once per unit operating day."<br><br>Note: The FERC Gas Tariff for Cove Point LNG requires gas delivered to Cove Point Terminal to have less than 25 grains of total sulfur per 100 $ft^3$ of natural gas. Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement. Monitoring is fulfilled by the tariff.<br><br>E. Control of VOC Emissions<br>The Permittee shall calculate monthly VOC emissions from each combustion turbine based on the monthly fuel usage and VOC emission rate, lbs./MMBtu of heat input, collected from the stack emission testing or any other method approved by the Department. **[Reference: COMAR 26.11.03.06C]**<br><br>F. Control of Carbon Monoxide (CO) Emissions<br>See Table-IV-16 for additional Monitoring Requirements (CAM). |
| **10.4** | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions |

| Table IV – 10 | |
|---|---|
| | The Permittee shall record any incidences of visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C].**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall maintain the following on site for at least 5 years: records of stack testing results; record of the date, time and description of maintenance performed on the combustion turbines and shall submit records to the Department upon request. **[Reference: COMAR 26.11.03.06C].**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall maintain the following records on site for at least 5 years and make available to the Department upon request:<br>(a) Total NOx emissions (tons) for each calendar month and each rolling 12-month period.<br>(b) Monthly natural gas usage in MMBtu per month and power output in kW/hour.<br>(c) NOx emission rates, lb./MMBtu of heat input.<br>(d) Monthly chemical reagent usage for the SCR system, lbs./month.<br>(e) All CEM system monitoring data, which are used to demonstrate compliance with the emission limits;<br>(f) All CEM certifications and calibration results; and<br>(g) The repairs and maintenance made to the SCR or oxidation catalyst emission control devices or the NOx CEM system.<br>**[Reference: CPCN Case No. 9055 issued 8/15/06]**<br><br>D. Control of SOx Emissions<br>The Permittee shall keep records of the sulfur content value of the gaseous fuel determined and recorded once per unit operating day. **[Reference: §60.4370 & COMAR 26.11.03.06C].**<br>Note: Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement. Daily monitoring is not required due to the tariff.<br><br>E. Control of VOC Emissions<br>The Permittee shall maintain the following records on site for at least 5 years and make available to the Department upon request: monthly VOC emissions from the combustion turbine and stack testing results. **[Reference: COMAR 26.11.03.06C]**<br><br>F. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall maintain records of stack testing results on site for at least 5 years and make available to the Department upon request. |

| Table IV – 10 | |
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| | **[Reference: COMAR 26.11.03.06C].** |
| 10.5 | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the stack tests to the Department within 60 days of completion of the tests. **[Reference: COMAR 26.11.03.06C]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following:<br>(i) The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards;<br>(ii) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;<br>(iii) The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the validity of emission data;<br>(iv) Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter;<br>(v) Quarterly quality assurance activities; and<br>(vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and<br>(vii)Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation."<br>**[Reference: COMAR 26.11.03.06C]**<br><br>CEM System Downtime Reporting Requirement: The Permittee shall report all system downtime, other than downtime generated from routine calibration failures that lasts or is expected to last more than 24 hours to the Department by telephone or email before 10 a.m. of the first regular business day following the breakdown. The system breakdown report shall include the reason, if known, for the breakdown and the estimated |

| Table IV – 10 | |
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| | period of time that the CEM will be down. The owner or operator of the CEM shall notify the Department by telephone when an out-of-service CEM is back in operation and producing valid data. **[Reference: COMAR 26.11.03.06C]**<br><br>D. Control of $SO_x$ Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>E. Control of VOC Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the stack tests to the Department within 60 days of completion of the tests. **[Reference: COMAR 26.11.03.06C].**<br><br>F. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the stack tests to the Department within 60 days of completion of the tests. **[Reference: COMAR 26.11.03.06C].** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

| Table IV – 11 | |
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| **11.0** | **Emissions Unit Number(s): S022 – Heater**<br><br>**S022** – (N/A).<br>One (1) natural gas-fired process heater equipped with LNB rated at 0.93 MMBtu/hr.<br>**Controls:** None |
| **11.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.09.05** - Visible Emissions.<br>"**A**. Fuel Burning Equipment. |

| Table IV – 11 | |
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| | (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.<br>(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:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period. "<br><br>B. Control of Particulate Matter Emissions<br>The process heater is subject to the $PM_{10}$ BACT requirements listed in CPCN Case No. 9055 Licensing Conditions: $PM_{10}$ emission limit of 0.0074 lb./MMBtu on a 3-hour average basis (filterable and condensable) to be achieved by exclusive use of pipeline quality and low sulfur natural gas. **[Reference: CPCN Case No. 9055 issued 8/15/06]**<br><br>C. Control of Nitrogen Oxides<br>The process heater is subject to the $NO_x$ BACT requirement and the $NO_x$ LAER requirements listed in the CPCN Case No. 9055 Licensing Conditions: $NO_x$ emission limit of 17 ppmvd corrected to 3% oxygen on a 3-hour average basis to be achieved by the exclusive use of natural gas, good combustion practices and dry low-$NO_x$ burners. **[Reference: CPCN Case No. 9055 issued 8/15/06]**<br><br>D. Control of VOC Emissions<br>The process heater is subject to the VOC LAER requirements listed in the CPCN Case No. 9055 Licensing Conditions: VOC emission limit of 143 ppmvd corrected to 3% oxygen on a 3-hour average basis. **[Reference: CPCN Case No. 9055 issued 8/15/06]**<br><br>E. Control of Carbon Monoxide Emissions<br>The process heater is subject to the CO BACT requirements listed in the CPCN Case No. 9055 Licensing Conditions: CO emission limit of 143 ppmvd corrected to 3% oxygen on a 3-hour average basis to be achieved by good combustion practices. **[Reference: CPCN Case No. 9055 issued 8/15/06]** |
| 11.2 | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements. |

| Table IV – 11 | |
|---|---|
| | B. Control of Particulate Matter Emissions<br>See Reporting Requirements.<br><br>C. Control of Nitrogen Oxides<br>See Record Keeping Requirements.<br><br>D. Control of VOC Emissions<br>See Record Keeping Requirements.<br><br>E. Control of Carbon Monoxide Emissions<br>See Reporting Requirements. |
| **11.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>See Reporting Requirements.<br><br>C. Control of Nitrogen Oxides<br>See Record Keeping Requirements.<br><br>D. Control of VOC Emissions<br>See Recording Keeping Requirements.<br><br>E. Control of Carbon Monoxide Emissions<br>See Reporting Requirements |
| **11.4** | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall maintain records of any incidences of visible emissions and related corrective actions taken. **[Reference: COMAR 26.11.03.06C].**<br><br>B. Control of Particulate Matter Emissions<br>See Reporting Requirements. |

| Table IV – 11 | |
|---|---|
| | C. Control of Nitrogen Oxides<br>The Permittee shall maintain records of the following on site for at least 5 years and make available to the Department upon request: monthly natural gas usage, million BTU per month, and $NO_x$ emission rates, lbs./MMBtu of heat input. **[Reference: CPCN Case No. 9055 issued 8/15/06]**<br><br>D. Control of VOC Emissions<br>The Permit shall maintain records of the following on site for at least 5 years and make available to the Department upon request: monthly natural gas usage, million BTU per month, and VOC emission rates, lbs./MMBtu of heat input. **[Reference: CPCN Case No. 9055 issued 8/15/06]**<br><br>E. Control of Carbon Monoxide Emissions<br>See Reporting Requirements |
| **11.5** | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>D. Control of VOC Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

| Table IV – 12 | |
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| 12.0 | **Emissions Unit Number(s): S023 – Emergency Engine**<br><br>**S023** – (009-9-0082)<br>One (1) natural gas-fired Caterpillar black-start emergency generator rated at 1085-hp (920-kW).<br>**Controls:** None |
| 12.1 | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.09.05 - Visible Emissions.**<br>**E.** Stationary Internal Combustion Engine Powered Equipment.<br>"**(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.<br>**(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.<br>**(4)** Exceptions.<br>(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.<br>(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:<br>(i) Engines that are idled continuously when not in service: 30 minutes;<br>(ii) All other engines: 15 minutes.<br>(c) Section E(2) and (3) of this regulation do not apply while maintenance, repair, or testing is being performed by qualified mechanics. "<br><br>B. Control of Particulate Matter Emissions<br>The engine is subject to $PM_{10}$ BACT emission standards listed in the CPCN Case No. 9055: $PM_{10}$ emissions limit of 0.0099 lbs./MMBtu on a 3-hour average basis to be achieved by exclusive use of pipeline quality, low sulfur natural gas and a limit on operations of no more than 200 hours during any consecutive 12-month period. **[Reference: CPCN Case No. 9055, issued 8/15/06].** |

| Table IV – 12 | |
|---|---|
| | C. Control of Nitrogen Oxides<br>The engine is subject to NOx BACT and LAER emission standards listed in the CPCN Case No. 9055: NOx emission limit of 2.0 g/bhp-hr. on a 3-hour average basis to be achieved by good combustion practices, proper operation and maintenance plan and a limit on operations of no more than 200 hours during any consecutive 12-month period. **[Reference: CPCN Case No. 9055, issued 8/15/06].**<br><br>D. Control of VOC Emissions<br>The engine is subject to VOC LAER emission standards listed in the CPCN Case No. 9055; Licensing Conditions: VOC emission limit of 0.6 g/bhp-hr. on a 3-hour average basis. **[Reference: CPCN Case No. 9055, issued 8/15/06].**<br><br>E. Control of Carbon Monoxide Emissions<br>The engine is subject to CO BACT emission standards listed in the CPCN Case No.9055; Licensing Conditions: CO emission limit of 1.5 g/bhp-hr. on a 3-hour average basis to be achieved by good combustion practices, proper operation and maintenance plan and a limit on operations of no more than 200 hours during any consecutive 12-month period. **[Reference: CPCN Case No. 9055, issued 8/15/06].** |
| 12.2 | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>See Record Keeping Requirements.<br><br>C. Control of Nitrogen Oxides<br>See Record Keeping Requirements.<br><br>D. Control of VOC Emissions<br>See Record Keeping Requirements.<br><br>E. Control of Carbon Monoxide Emissions<br>See Record Keeping Requirements. |
| 12.3 | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements. |

| Table IV – 12 | |
|---|---|
| | B. Control of Particulate Matter Emissions<br>See Record Keeping Requirements.<br><br>C. Control of Nitrogen Oxides<br>See Record Keeping Requirements.<br><br>D. Control of VOC Emissions<br>See Record Keeping Requirements.<br><br>E. Control of Carbon Monoxide Emissions<br>See Record Keeping Requirements. |
| 12.4 | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall keep records of incidences of visible emissions and corrective actions. **[Reference: COMAR 26.11.03.06C]**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall maintain the following records on site and make available to the Department upon request: monthly fuel usage rates in MMBtu per month and hours of operation for the generator **[Reference: CPCN Case No. 9055 issued 8/15/06]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall maintain records of the following: monthly fuel usage rates, million BTU per month, and number of hours each generator operates per month. **[Reference: CPCN Case No. 9055 issued 8/15/06 & COMAR 26.11.09.08G(1)(c & e)]**<br><br>D. Control of VOC Emissions<br>The Permittee shall maintain the following records on site and make available to the Department upon request: monthly fuel usage rates in MMBtu per month and hours of operation for the generator. **[Reference: CPCN Case No. 9055 issued 8/15/06]**<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee shall maintain the following records on site and make available to the Department upon request: .monthly fuel usage rates in MMBtu per month and hours of operation for the generator. **[Reference:** |

| Table IV – 12 | |
|---|---|
| | **CPCN Case No. 9055 issued 8/15/06]** |
| 12.5 | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>D. Control of VOC Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| Table IV – 13 | |
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| 13.0 | **Emissions Unit Number(s): S021 through S023: Associated with the ASU Project**<br><br>**S021** – (009-5-0065)<br>One (1) natural gas-fired, Solar Titan turbine with nominal rating of 137 MMBtu/hr. equipped with DLN combustors, SCR, and oxidation catalyst.<br><br>**S022** – (N/A).<br>One (1) natural gas-fired process heater equipped with LNB rated at 0.93 |

| Table IV – 13 | |
|---|---|
| | MMBtu/hr.<br><br>**S023** – (009-9-0082)<br>One (1) natural gas-fired Caterpillar black-start emergency generator rated at 1085-hp (920-kW). |
| 13.1 | **Applicable Standards/Limits:**<br><br>A. Control of VOC Emissions<br>The VOC emissions are limited to 3.7 tons for any 12-month period rolling monthly for emissions unit associated with the ASU project. **[Reference: CPCN Case No. 9055 issued 8/15/06]**<br><br>B. Control of Nitrogen Oxides<br>The NOx emissions are limited to 12.8 tons for any 12-month period rolling monthly for emission units associated with ASU project. **[Reference: CPCN Case No. 9055 issued 8/15/06].** |
| 13.2 | **Testing Requirements:**<br><br>A. Control of VOC Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Nitrogen Oxides<br>See Record Keeping Requirements. |
| 13.3 | **Monitoring Requirements:**<br><br>A. Control of VOC Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Nitrogen Oxides<br>See Record Keeping Requirements. |
| 13.4 | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of VOC Emissions<br>The Permit shall maintain records of VOC emissions for any 12-month period, rolling monthly on site for at least 5 years and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** |

| Table IV – 13 | |
|---|---|
| | B. Control of Nitrogen Oxides<br>The Permittee shall maintain records of $NO_x$ emissions for any 12-month period, rolling monthly on site for at least 5 years and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** |
| 13.5 | **Reporting Requirements:**<br><br>A. Control of VOC Emissions<br>The Permittee shall submit to the Department no later than 30 days following each calendar quarter a quarterly report. The report shall be in a format approved by the Department and shall include monthly and rolling 12-month VOC emission calculations. **[Reference: COMAR 26.11.03.06C]**<br><br>B. Control of Nitrogen Oxides<br>The Permittee shall submit to the Department not later than 30 days following each calendar quarter a quarterly summary report. The report shall be in a format approved by the Department and shall include monthly and rolling 12-month $NO_x$ emission calculations. **[Reference: COMAR 26.11.03.06C]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| Table IV – 14 | |
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| 14.0 | **Emissions Unit Number(s): S024 & S025 - Heaters**<br><br>**S024 & S025** – (009-5-0060 and 009-5-0062).<br>Two (2) Johnston water-ethylene glycol (WEG) heaters, each with a rating of 82.3 MMBtu/hr., each equipped with ultra-low $NO_x$ burners (ULNB)<br>**Controls:** None |
| 14.1 | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions |

| Table IV – 14 | |
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| | **COMAR 26.11.09.05** - Visible Emissions.<br>"**A.** Fuel Burning Equipment.<br>(**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.<br>(**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:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period. "<br><br>B. Control of Nitrogen Oxides<br>**COMAR 26.11.09.08B.** - General Requirements and Conditions.<br>(1) Emission Standards and Requirements.<br>(a) A person who owns or operates an installation that causes $NO_x$ emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation. (c) Emission Standards in Pounds of $NO_x$ per Million Btu of heat input. – Gas only: 0.2. "<br><br>C. NSPS for PM and $SO_x$ Emissions<br>**40 CFR Part 60** Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units<br>**§60.40c** - Applicability and delegation of authority.<br>(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h). Since the heaters are fired on natural gas only, the record keeping and reporting requirements **§60.48c** apply. |
| **14.2** | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Nitrogen Oxides<br>See Record Keeping Requirements. |

| Table IV – 14 | |
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| | C. NSPS for PM and $SO_x$ Emissions<br>See Record Keeping Requirements. |
| **14.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Nitrogen Oxides<br>See Record Keeping Requirements.<br><br>C. NSPS for PM and $SO_x$ Emissions<br>See Record keeping Requirements |
| **14.4** | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall record any incidences of visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C].**<br><br>B. Control of Nitrogen Oxides<br>The Permittee shall maintain the following records on-site for a period of at least five years and make available to the Department upon request:<br>(1) Monthly natural gas usage in millions BTU per month for each WEG heater.<br>(2) $NO_x$ emission rates, lbs./MMBtu of heat input for each WEG heater. **[Reference: MDE Permit to Construct No. 009-0021-5-0060 and 5-0062 issued 2/12/09]**<br><br>C. NSPS for PM and $SO_x$ Emissions<br>**§60.48c** - Reporting and recordkeeping requirements.<br>"(g)(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only **natural gas**, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the $SO_2$ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to **record and maintain records of the amount of each fuel combusted during each calendar month**." |
| **14.5** | **Reporting Requirements:** |

| Table IV – 14 | |
|---|---|
| | A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Nitrogen Oxides<br>See Record Keeping Requirements.<br><br>C. NSPS for PM and $SO_x$ Emissions<br>The Permittee shall report the fuel usage and hours of operation in each quarterly report. This quarterly reporting satisfies the semiannual reporting requirement of §60.48c(j). **[Reference: COMAR 26.11.03.06C].** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| Table IV – 15 | |
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| **15.0** | **Emissions Unit Number(s): Emergency Engines**<br><br>One (1) Onan 605 hp diesel-fired engine intended for emergency purposes. **(009-0021-9-0091)**<br>Three (3) 465 hp emergency generators<br>Three (3) fire pumps (two (2) onshore and one (1) offshore)<br>Emergency generators plus offshore fire pump installed prior to July 11, 2005), two (2) onshore fire pumps are: one manufactured in July 2008 and one manufactured in 2016 (installed 2017)<br>Three (3) emergency diesel-fired air compressors each rated at 475 hp (installed 2018) |
| **15.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.09.05 - Visible Emissions.**<br>**E.** Stationary Internal Combustion Engine Powered Equipment.<br>"**(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.<br>**(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.<br>**(4)** Exceptions. |

| Table IV – 15 | |
|---|---|
| | (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.<br>(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:<br>(i) Engines that are idled continuously when not in service: 30 minutes;<br>(ii) All other engines: 15 minutes.<br>(c) Section E(2) and (3) of this regulation do not apply while maintenance, repair, or testing is being performed by qualified mechanics. "<br><br>B. Control of Sulfur Oxides<br>**COMAR 26.11.09.07** - Control of Sulfur Oxides From Fuel Burning Equipment.<br>Sulfur Content Limitations for Fuel. A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations:<br>(1) In Areas I, II, V, and VI: (c) Distillate fuel oils, 0.3 percent.<br><br>C. Control of Nitrogen Oxides<br>**COMAR 26.11.09.08G**. - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.<br>"(1) A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall:<br>(a) Provide certification of the capacity factor of the equipment to the Department in writing;<br>(b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;<br>(c) Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request;<br>(d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and<br>(e) Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request." |
| **15.2** | **Testing Requirements:** |

| Table IV – 15 | |
|---|---|
| | A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Sulfur Oxides<br>See Monitoring Requirements.<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. **[Reference: COMAR 26.11.09.08G(1)(b)]**. |
| **15.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Sulfur Oxides<br>The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. **[Reference: COMAR 26.11.03.06C]**<br><br>C. Control of Nitrogen Oxides<br>For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. **[Reference: COMAR 26.11.03.06C]** |
| **15.4** | **Record Keeping Requirements:**<br>**Note**:<br>All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall maintain records of any visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C]**<br><br>B. Control of Sulfur Oxides<br>The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. **[Reference: COMAR 26.11.03.06C].**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall: |

| Table IV – 15 | |
|---|---|
| | (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. **[Reference: COMAR 26.11.09.08G(1)(c) & COMAR 26.11.03.06C].**<br>(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. **[Reference: COMAR 26.11.09.08G(1)(e) and COMAR 26.11.03.06C].**<br>(3) Retain records of hours of operation on a monthly basis for all engines. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period. **[Reference: COMAR 26.11.03.06C].** |
| **15.5** | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Sulfur Oxides<br>The Permittee shall report fuel supplier certification to the Department upon request. **[Reference: COMAR 26.11.09.07C].**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report. [**Reference: COMAR 26.11.09.08G(1)(a) & COMAR 26.11.03.06C]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

| Table IV – 15a | |
|---|---|
| **15a.0** | **Emissions Unit Number(s): Emergency Engines Cont'd**<br><br>One (1) Onan 605 hp diesel-fired engine intended for emergency purposes. **(009-0021-9-0091)**<br>Three (3) 465 hp emergency generators<br>One (1) fire pump (offshore)<br>Generators Installed prior to July 11, 2005) |
| **15a.1** | **Applicable Standards/Limits:** |

**Table IV – 15a**

**40 CFR Part 63 Subpart ZZZZ –** National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

**§63.6595 - When do I have to comply with this subpart?**

(a) *Affected sources.* (1)" ..... If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, **or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013.** .....".

**§63.6603 - What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?**

"Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in **Table 2d** to this subpart and the operating limitations in Table 2b to this subpart that apply to you."

**Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions**

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

| For each . . . | You must meet the following requirement, except during periods of startup . . . | During periods of startup you must . . . |
|---|---|---|
| 4. Emergency stationary CI RICE and black start stationary CI RICE.[2] | a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1] | |
| | b. Inspect air cleaner every 1,000 hours of operation or annually, | |

**Table IV – 15a**

| | | |
|---|---|---|
| | whichever comes first; and | |
| | c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. | |

[1]Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

[2]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

**§63.6605 - What are my general requirements for complying with this subpart?**

"(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.

(c) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source."

| | |
|---|---|
| **15a.2** | **<u>Testing Requirements</u>:**<br><br>See Monitoring Requirements |
| **15a.3** | **<u>Monitoring Requirements:</u>**<br><br>**§63.6625 - What are my monitoring, installation, collection, operation, and maintenance requirements?**<br>"(e) If you own or operate any of the following stationary RICE, you must |

| Table IV – 15a | |
|---|---|
| | operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:<br>(3) An **existing emergency** or black start stationary RICE located at an area source of HAP emissions."<br><br>"(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or **an existing emergency stationary RICE located at an area source of HAP emissions,** you must install a non-resettable hour meter if one is not already installed."<br><br>"(h) If you operate a new, reconstructed, or **existing stationary engine**, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply."<br><br>"(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the |

| Table IV – 15a | |
|---|---|
| | analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine."<br><br>**§63.6640 - How do I demonstrate continuous compliance with the emission limitations and operating limitations?**<br>"(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.<br>(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE."<br><br>"(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE 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 (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.<br>(1) There is no time limit on the use of emergency stationary RICE in emergency situations.<br>(2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(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 paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).<br>(i) Emergency stationary RICE 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 |

| Table IV – 15a | |
|---|---|
| | 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 RICE beyond 100 hours per calendar year.<br>(ii) Not Applicable<br>(iii) Not Applicable.<br>(3) Not Applicable<br>(4) Emergency stationary RICE located at area sources of HAP 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 and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity." |
| 15a.4 | **Record Keeping Requirements:**<br>**Note:** All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]**<br><br>**§63.6655 - What records must I keep?**<br>"(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;<br>(2) An existing stationary emergency RICE.<br>(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart."<br><br>"(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. |

| Table IV – 15a | |
|---|---|
| | If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.<br>(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines." |
| 15a.5 | **Reporting Requirements:**<br><br>"Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable." **[Footnote 2 of Table 2d]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| Table IV – 15b | |
|---|---|
| 15b.0 | **Emissions Unit Number(s): Emergency Engines Cont'd**<br><br>One (1) 360 bhp onshore fire pump manufactured in July 2008<br>One (1) 350 hp onshore fire pump installed 2017 manufactured in 2016<br>Three (3) emergency diesel-fired air compressors each rated at 475 hp (installed 2018) |
| 15b.1 | **Applicable Standards/Limits:**<br><br>A. New Source Performance Standards (**NSPS**) under 40 CFR Part 60 Subpart IIII for Stationary Compression Ignition Internal Combustion Engines.<br>Note: Beginning October 1, 2010, installations subject to 40 CFR Part 60, Subpart IIII must comply with the diesel fuel standards of §60.4207 which limit the maximum sulfur content of the fuel to 15 ppm.<br><br>(1) This permit is valid only for the installation of an emergency diesel generator with piston displacement less than 10 liters per cylinder.<br><br>(2) The provisions of 40 CFR Part 60, Subpart IIII apply if the emergency diesel generator uses a diesel engine manufactured after April 1, 2006 |

| Table IV – 15b | |
|---|---|
| | [**Reference: §60.4200**].<br><br>(3) An emergency diesel generator or diesel engine subject to the requirements of 40 CFR 60, Subpart IIII ("NSPS emergency diesel generator" or "NSPS emergency diesel engine") shall be equipped with a non-resettable hour meter [**Reference: §60.4209(a)].**<br><br>(4) For pre-2007 model year NSPS emergency diesel engines, the Permittee must demonstrate compliance with the emission standards specified in Table 1 to 40 CFR Part 60, Subpart IIII, by either [**Reference: §60.4205(a)]:**<br>(a) Purchasing and installing an engine certified according to 40 CFR Part 89 as meeting the Tier 1 emission standards of 40 CFR §89.112. The engine must be installed and configured according to the manufacturer's specifications [**Reference: §60.4211(b)(1)**] or<br>(b) Keeping records of engine manufacturer test data indicating compliance with the standard [**Reference: §60.4211(b)(3)].**<br><br>(5) For 2007 model year and later model year NSPS emergency diesel engines, the Permittee must purchase and install an engine certified to the emission standards of §60.4205(b) for the same model year and maximum engine horsepower [**Reference: §60.4211(c)**]:<br>(a) For engines with a maximum engine power less than or equal to 2,237 KW (3,000 HP), the certification emission standards for new nonroad diesel engines in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants [**Reference: §62.4202(a)];**<br>(b) For engines with a maximum engine power greater than 2,237 KW (3,000 HP), and for 2007 through 2010 model years, the emission standards in Table 1 to 40 CFR Part 60, Subpart IIII (which are the same as the Tier 1 emission standards of 40 CFR §89.112) [**Reference: §62.4202(b)(1)**].<br>(c) For 2011 model year and later, the certification emission standards for new nonroad diesel engines in 40 CFR 89.112 and 40 CFR 89.113 [**Reference: §62.4202(b)(2)].**<br><br>(6) After December 31, 2008, owners and operators may not install an emergency diesel generator that does not meet the applicable requirements for 2007 model year engines [**Reference: §60.4208**].<br><br>(7) The requirements of condition (6) above do not apply to owners or operators of NSPS emergency diesel engines that have been modified, reconstructed, and do not apply to engines that were removed from one |

**Table IV – 15b**

existing location and reinstalled at a new location [**Reference: §60.4208**].

B. National Emissions Standards for Hazardous Air Pollutants (**NESHAP**) promulgated under 40 CFR 63, Subparts A and ZZZZ for Reciprocating Internal Combustion Engines

"**§63.6590** - What parts of my plant does this subpart cover?
This subpart applies to each affected source.
(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of **40 CFR part 60 subpart IIII**, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. *No further requirements apply for such engines under this part.*
(1) A new or reconstructed stationary RICE located at an area source."

C. Operational Limits

(1) The Permittee must operate and maintain an NSPS emergency diesel generator and control devices according to the manufacturer's written instructions or according to procedures developed by the owner or operator that are approved by the manufacturer. Additionally, the Permittee may change only those settings that are permitted by the manufacturer. The Permittee must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they may apply to an owner or operator. [**Reference: §60.4211**].

(2) Beginning October 1, 2007, an NSPS emergency diesel generator must combust diesel fuel meeting the requirements of 40 CFR §80.510(a), unless a waiver is obtained from the Department and/or the EPA Administrator. [**Reference: §60.4207**]

(3) Beginning October 1, 2010, an NSPS emergency diesel generator must combust diesel fuel meeting the requirements of 40 CFR §80.510(b), unless a waiver is obtained from the Department and/or the EPA Administrator. [**Reference: §60.4207**].

(4) In accordance with 40 CFR §60.4211(f), If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(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

| Table IV – 15b | |
|---|---|
| | described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(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.<br>(1) There is no time limit on the use of emergency stationary ICE in emergency situations.<br>(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(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 (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).<br>(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.<br>(ii) Not Applicable.<br>(iii) Not Applicable.<br>(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 and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.<br>(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:<br>(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;<br>(B) The dispatch is intended to mitigate local transmission and/or |

| Table IV – 15b | |
|---|---|
| | 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.<br>(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.<br>(D) The power is provided only to the facility itself or to support the local transmission and distribution system.<br>(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. [**Reference: §60.4211(f)]** |
| **15b.2** | **Testing Requirements:**<br><br>A. NSPS<br>See Record keeping Requirements.<br><br>B. NESHAP<br>See NSPS Requirements.<br><br>C. Operational Limits<br>See NSPS Requirements. |
| **15b.3** | **Monitoring Requirements:**<br><br>A. NSPS<br>See Record Keeping Requirements.<br><br>B. NESHAP<br>See NSPS Requirements.<br><br>C. Operational Limits<br>See NSPS Requirements. |
| **15b.4** | **Record Keeping Requirements:**<br>**Note:** All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]**<br><br>A. NSPS |

| Table IV – 15b | |
|---|---|
| | (1) The Permittee shall maintain a log for the emergency generator indicating the hours of operation, and reason for generator operation (i.e., maintenance, operational testing, emergency, power outage, etc.).<br><br>(2) The Permittee shall maintain on site for the life of the source the following records for the emergency diesel generator(s):<br>(a) Documentation of the manufacture date of the diesel engine, if manufactured prior to April 1, 2006 and the manufacturer model year of the diesel engine;<br>(b) The installation date of each emergency diesel generator; and<br>(c) The certifications of compliance or manufacturer engine test data required by 40 CFR §60.4211 and §60.4214(b).<br><br>(3) Beginning October 1, 2007, for any NSPS emergency diesel generator the Permittee shall for each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §80.510. The Permittee shall maintain the required records on site for at least five (5) years.<br><br>B. NESHAP<br>See NSPS Requirements.<br><br>C. Operational Limits<br>See NSPS Requirements. |
| 15b.5 | **Reporting Requirements:**<br><br>A. NSPS<br>See Record Keeping Requirements.<br><br>B. NESHAP<br>See NSPS Requirements.<br><br>C. Operational Limits<br>See NSPS Requirements. |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

| Table IV-16 | |
|---|---|
| **COMPLIANCE ASSURANCE MONITORING REQUIREMENTS – PART 64** | |
| **Emission Unit: GE Frame 5 and Solar Turbines with oxidation catalyst (S009, S010 & S021)** | |
| **Applicable Requirement** | **40 CFR 52.21 (PSD-2005-01 & CPCN 9055): CO Emissions** |
| **Emission Limits** | **6 ppmvd @ 15% $O_2$** |
| **Monitoring Requirements** | **Periodic Visual Inspections** |
| I. Indicator | **Visual Inspection of Catalyst and Exhaust Duct** |
| II. Measurement Approach | Monitor the oxidation catalyst effectiveness through visual inspections. Visual inspections will be performed once per year and documented in SAP. Inspections will occur while source is not in operation |
| III. Indicator Value | Darkening or fouling of the catalyst observed during an inspection will provide an indication to the operator that the oxidation catalyst system should be further evaluated and/or corrective actions be initiated. |
| **IV Performance Criteria** | |
| A. Data Representativeness | Fouling/darkening of the catalyst is indicative of the performance of the catalyst |
| B. Verification of Operational Status | N/A |
| C. QA/QC Practices and Criteria | Follow manufacturer's recommendation and Cove Point-specific procedures for quality assurance and control of the inspection program. |
| D. Monitoring Frequency | The visual inspections will be performed on an annual basis. |
| E. Data Collection Procedures | The results of each annual visual inspection will be documented in the SAP. |
| F. Averaging Period | N/A |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

| Table IV – 17 | |
|---|---|
| **17.0** | **<u>Emissions Unit Number(s): S027 & S028 – Combustion Turbines</u>**<br><br>**<u>S027 & S028</u>** – (009-0021-5-0071)<br>Two (2) GE Frame 7 combustion turbines with heat recovery steam generators (HRSGs) each nominally rated at 1,062 MMBtu/hr. with a nominal net shaft power of 87.2 MW rated capacity (116,178 hp nameplate power output) equipped with DLN1 combustors, SCRs, and oxidation |

| Table IV – 17 | |
|---|---|
| | catalysts.<br>**Controls:** DLN1, SCR and OC |
| 17.1 | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.09.05** - Visible Emissions.<br>"**A.** Fuel Burning Equipment.<br>(**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."<br>"(**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:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period. "<br><br>B. Control of Particulate Matter Emissions<br>**PM**: The Frame 7 CTs are subject to the PM Filterable BACT limit of 0.0033 lb./MMBtu (filterable only) of heat input.<br><br>**$PM_{10}$**: The Frame 7 CTs are subject to the $PM_{10}$ BACT limit of 0.007 lb./MMBtu (filterable and condensable) of heat input, except during periods of startup and shutdown. Furthermore, combined emissions from the two Frame 7 CTs are subject to $PM_{10}$ BACT limits of 300.8 lbs./startup event and 5.6 lbs./shutdown event (filterable and condensable).<br><br>**$PM_{2.5}$**: The Frame 7 CTs are subject to the $PM_{2.5}$ BACT limit of 0.007 lb./MMBtu (filterable and condensable) of heat input, except during periods of startup and shutdown. Furthermore, combined emissions from the two Frame 7 CTs are subject to $PM_{2.5}$ BACT limits of 300.8 lbs./startup event and 5.6 lbs./shutdown event (filterable and condensable).<br>**[Reference: CPCN Case No. 9318, Condition A-IV-3]**<br><br>*See Table IV-25 for additional requirements.*<br><br>C. Control of Nitrogen Oxides<br>**COMAR 26.11.09.08G.** - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.<br>"(**2**) A person who owns or operates a combustion turbine with a capacity |

**Table IV – 17**

factor greater than 15 percent shall meet an hourly average $NO_x$ emission rate of not more than **42 ppm when burning gas** or 65 ppm when burning fuel oil (dry volume at 15 percent oxygen) or meet applicable Prevention of Significant Deterioration limits, whichever is more restrictive. "

**40 CFR Part 60, Subpart KKKK** - Standards of Performance for Stationary Combustion Turbines for which Construction, Modification or Reconstruction commenced after February 18, 2005.

**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 ($SO_2$).

**§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 (30 day rolling average) |
|---|---|---|
| New, modified, or reconstructed turbine firing natural gas | > 850 MMBtu/h | 15 ppm at 15 percent $O_2$ or 54 ng/J of useful output (0.43 lb./MWh) |

The Frame 7 combustion turbines are subject to the $NO_x$ LAER requirements and the $NO_x$ BACT requirements listed in the CPCN Case No. 9138: $NO_x$ emission limit of 2.5 ppmvd at 15% $O_2$ except during periods of startup and shutdown. (3-hour block average). Furthermore, combined emissions from the two Frame 7 combustion turbines are subject to BACT and LAER limits of 1,304.5 lbs./startup and 48.5 lbs./shutdown event for $NO_x$. **[Reference: CPCN Case No. 9318, Condition A-IV-4]**

Startup as it relates to the Frame 7 combustion turbines is defined as the period of time from initiation of combustion firing until the unit reaches at least 60% load. (Stable above 60% load for 15 consecutive minutes). **[Reference: CPCN Case No. 9318, Condition A-II-4]**

Shutdown as it relates to the Frame 7 combustion turbines is defined as that period of time during which the turbine output is lowered with the intent to shut down, beginning at the point at which the load drops below 60%. **[Reference: CPCN Case No. 9318, Condition A-II-5]**

*Note: BACT and LAER limit is more stringent than NSPS and COMAR limits.*

**Table IV – 17**

*See Table IV-25 for additional requirements.*

D. Control of $SO_X$ Emissions

**COMAR 26.11.09.07** - Control of Sulfur Oxides from Fuel Burning Equipment.

**A.** Sulfur Content Limitations for Fuel. A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations:

(**1**) In Areas I, II, V, and VI: (**d**) Process gas used as fuel, 0.3 percent.

**§60.4330 - What emission limits must I meet for sulfur dioxide ($SO_2$)?**

"(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. …

(1) You must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain $SO_2$ 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 $SO_2$/J (0.060 lb. $SO_2$/MMBtu) heat input**. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement. "

E. Control of VOC Emissions

The Frame 7 combustion turbines are subject to the **VOC LAER** limit of 0.7 ppmvd at 15% O2 (3-hour block average), except during startup and shutdown. Furthermore, the Frame 7 CTs are subject to VOC LAER limits of 101.0 lbs./startup event and 4.8 lbs./shutdown event. [**Reference: CPCN Case No. 9318, Condition A-IV-4]**

*See Table IV-25 for additional requirements.*

F. Control of Carbon Monoxide (CO) Emissions

The Frame 7combustion turbines are subject to the **CO BACT** emission limit of 1.5 ppmvd at 15% $O_2$ (3-hour average) except during periods of startup and shutdown. Furthermore, combined emissions from the two Frame 7 combustion turbines are subject to BACT limits of 562.4 lbs./startup and 59.2 lbs./shutdown event for CO. [**Reference: CPCN Case No. 9318, Condition A-IV-3]**

*See Table IV-25 for additional requirements.*

G. Control of Ammonia Emissions

| Table IV – 17 | |
|---|---|
| | The Frame 7 combustion turbines are subject to a limit of 5 ppmvd at 15% $O_2$ (24-hr block average) for ammonia slips from the SCRs. **[Reference: COMAR 26.11.15.05 and CPCN Case No. 9318, Condition A-IV-6]**<br><br>H. Control of GHG Emissions<br>The Frame 7 combustion turbines are subject to the **BACT $CO_2e$** emission limit of 117 lb./MMBtu (3-hr block average). **[Reference: CPCN Case No. 9318, Condition A-IV-3]**<br><br>*See Table IV-25 for additional requirements.* |
| **17.2** | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Monitoring Requirements.<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall conduct annual performance testing using EPA Method 5 or equivalent method approved by MDE-ARA to demonstrate compliance with **PM** emission limit.<br>The Permittee shall conduct annual performance testing using EPA Methods 201A/202 or equivalent method approved by MDE-ARA to demonstrate compliance with the **$PM_{10}$** and **$PM_{2.5}$** emission limit.<br>**[Reference: CPCN Case No. 9318, Conditions A-IV-7, A-IV-8, and A-IV-9]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall conduct performance test for $NO_X$ in accordance with the methodologies specified in 40 CFR **§60.4340 & §60.4400.**<br>**§60.4340** - How do I demonstrate continuous compliance for $NO_X$ if I do not use water or steam injection?<br>"(**b**) As an alternative, you may install, calibrate, maintain and operate one of the following continuous monitoring systems:<br>(**1**) Continuous emission monitoring as described in §60.4335(b) and §60.4345."<br><br>D. Control of $SO_X$ Emissions<br>**COMAR**: See Record Keeping Requirements.<br>**NSPS**: The Permittee shall conduct performance test for $SO_X$ in accordance with the methodologies specified in 40 CFR **§60.4415** at a frequency described in 40 CFR §60.4370. **[Reference: 40 CFR §60.4360]**<br>**Note**: Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement. |

| Table IV – 17 | |
|---|---|
| | Performance tests are satisfied by the tariff.<br><br>E. Control of VOC Emissions<br>The Permittee shall conduct annual performance test using EPA Method 18/25A or equivalent method approved by MDE-ARA or CEMs installed and certified under 40 CFR 60 Appendix B and F. **[Reference: CPCN Case No. 9318, Conditions A-IV-7, A-IV-8 & A-IV-9]**<br><br>F. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall conduct annual performance test using EPA Method 10 or equivalent method approved by MDE-ARA or CEMS installed and certified under 40 CFR 60 Appendix B and F. **[Reference: CPCN Case No. 9318, Conditions A-IV-9]**<br><br>G. Control of Ammonia Emissions<br>The Permittee shall conduct performance testing at least once every five years using EPA Method CTM-027 or equivalent method approved by MDE-ARA to demonstrate compliance with **ammonia** emission limit. **[Reference: CPCN Case No. 9318, Conditions A-IV-8 and A-IV-9]**<br><br>H. Control of GHG Emissions<br>The Permittee shall conduct annual performance test for $CO_2$ using EPA Method 3A or equivalent method approved by MDE-ARA or CEMS installed and certified under 40 CFR 60 Appendix B and F.**[Reference: CPCN Case No. 9318, Conditions A-IV-7, A-IV-8 & A-IV-9]]** |
| **17.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall conduct visible observations in accordance with EPA Reference Method 22 for six consecutive minutes at least once each calendar quarter to verify that there are no visible emissions during operation. If visible emissions are observed, the Permittee shall inspect combustion control system, perform necessary adjustments and/or repairs with 48 hours and document in writing the results of the inspection, adjustments and/or repairs. After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, the Permittee shall perform Method 9 observations once daily for at least 1 hour until corrective actions have reduced the visible emissions to less than 20 percent opacity. **[Reference: COMAR 26.11.02.02(h) & COMAR 26.11.03.06C]**<br><br>B. Control of Particulate Matter Emissions |

**Table IV – 17**

The Permittee shall calculate emissions based on fuel flow and emission factors developed during annual stack testing and update emissions on a rolling 12-month basis. **[Reference: CPCN Case No. 9318, Conditions A-IV-13]**

C. Control of Nitrogen Oxides

The Permittee shall demonstrate continuous compliance with $NO_x$ in accordance with 40 CFR **§60.4340** as follows:

"(**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."

The Permittee shall follow the calculations procedures set forth in 40 CFR §60.4350 for the purposes of identifying excess emissions. **[Reference: 40 CFR §60.4350]**

D. Control of $SO_x$ Emissions

**COMAR**: See Record Keeping Requirements.

**NSPS: §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.

**§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 $SO_2$/J (0.060 lb. $SO_2$/MMBtu) heat input for units located in continental areas and 180 ng $SO_2$/J (0.42 lb. $SO_2$/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

| Table IV – 17 | |
|---|---|
| | 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 $SO_2$ /J (0.060 lb. $SO_2$ /MMBtu) heat input for continental areas and has potential sulfur emissions of less than less than 180 ng $SO_2$ /J (0.42 lb. $SO_2$ /MMBtu) heat input for noncontinental areas."<br><br>**§60.4370 - How often must I determine the sulfur content of the fuel?**<br>"The frequency of determining the sulfur content of the fuel must be as follows:<br>(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 content value of the gaseous fuel must be determined and recorded once per unit operating day."<br><br>Note: The FERC Gas Tariff for Cove Point LNG requires gas delivered to Cove Point Terminal to have less than 25 grains of total sulfur per 100 $ft^3$ of natural gas. Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement. Monitoring is fulfilled by the tariff.<br><br>E. Control of VOC Emissions<br>The Permittee shall use CO CEMS data as a surrogate for VOC emissions. A correlation shall be developed between CO and VOC emissions based on an initial stack test. The emission correlation shall be verified annually by stack test, or a new correlation established. **[Reference: CPCN Case No. 9318, Condition A-IV-13].**<br><br>F. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall continuously monitor the CO emissions via a certified CEMS. **[Reference: COMAR 26.11.01.04B & CPCN Case No. 9318, Condition A-IV-8].**<br><br>G. Control of Ammonia Emissions<br>See Record Keeping Requirements.<br><br>H. Control of GHG Emissions<br>The Permittee shall install a $CO_2$ CEMS or calibrated in-line fuel flow meters as specified under 40 CFR 75.10(3) to measure $CO_2$ emissions associated with the production of electricity. **[Reference: CPCN Case No. 9318, Condition A-IV-14 & 40 CFR 75.10(3)].** |

| Table IV – 17 | |
|---|---|
| | Compliance with the project wide GHG limit is based on the global warming potentials (GWPs) from 40 CFR 98 Subpart A of 1 for carbon dioxide ($CO_2$), 25 for methane ($CH_4$) and 298 for nitrous oxide ($N_2O$). **[Reference: CPCN Case No. 9318, Condition A-III-6].** |
| 17.4 | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall maintain records of any incidences of visible emissions, the corrective actions taken and results of visible emissions observations. **[Reference: COMAR 26.11.03.06C].**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall maintain the following on site or electronically for at least 5 years: records of annual performance testing results; record fuel flow monthly, and annual fuel use records, and shall submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-IV-16 & A-IV-24]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall maintain the following:<br>a) All applicable $NO_x$ recordkeeping requirements for each of the Frame 7 combustion turbines as specified in 40 CFR §60.4375-40 CFR §60.4395. **[Reference: CPCN Case No. 9318, Conditions A-IV-25]**<br>b) Annual fuel use records on site or electronically for not less than 3 years and make these records available to MDE-ARA upon request. [COMAR 26.11.09.08K]. **[Reference: CPCN Case No. 9318, Condition A-IV-24]**<br><br>D. Control of $SO_x$ Emissions<br>**COMAR**: The Permittee shall maintain records of the FERC Gas Tariff for the gas delivered to the facility. **[Reference: COMAR 26.11.03.06C]**<br>**NSPS**: The Permittee shall keep records of the sulfur content value of the gaseous fuel determined and recorded once per unit operating day. **[Reference: §60.4370 & COMAR 26.11.03.06C].**<br>**Note**: Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement. Daily monitoring is not required due to the tariff.<br><br>E. Control of VOC Emissions |

| Table IV – 17 | |
|---|---|
| | The Permittee shall maintain the following: records of the stack testing result, on site for at least 5 years and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**<br><br>F. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall maintain records of the CEMs data (CEM certifications and calibration results) on site for at least 5 years and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C].**<br><br>G. Control of Ammonia Emissions<br>The Permittee shall maintain records of performance testing results on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05 & COMAR 26.11.03.06C]**<br><br>H. Control of GHG Emissions<br>The Permittee shall hourly record and monitor emissions of $CO_2$ from the Frame 7 combustion turbines utilizing a DAHS installed, calibrated and maintained in accordance with 40 CFR 75. **[Reference: CPCN Case No. 9318, Condition A-IV-14 & 40 CFR 75.10(3)]** |
| 17.5 | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall submit to MDE-ARA the results of visible emissions observations in each quarterly report. **[Reference: CPCN Case No. 9318, Condition A-IV-21]**<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-IV-7. A-IV-18 & A-III-8]**<br><br>C. Control of Nitrogen Oxides<br>The Permittee shall submit the following:<br>a) CEMS System Downtime Reports as required by COMAR |

**Table IV – 17**

26.11.01.11E(1).

b) Quarterly CEMS Summary Reports as required by COMAR 26.11.01.11E(2)(c). [COMAR 26.11.01.11E]. **[Reference: CPCN Case No. 9318, Condition A-IV-22]**

c) Quarterly reports of excess emissions and monitor downtime associated with the GE Frame 7 CTs, in accordance with 40 CFR §60.7(c). Excess emissions as defined in 40 CFR §60.4380 ($NO_x$) must be reported for all periods of unit operation, including startup, shutdown, and malfunction. [40 CFR §60.4375]. **[Reference: CPCN Case No. 9318, Condition A-IV-23]**

d) All applicable $NO_x$ reporting and recordkeeping requirements for each of the GE Frame 7 CTs as specified in 40 CFR §60.4375-40 CFR §60.4395. **[Reference: CPCN Case No. 9318, Condition A-IV-25]**

e) Quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in Table IV-25, Condition H.

D. Control of $SO_x$ Emissions

**COMAR & NSPS**: The Permittee shall report incidences of excess emissions of $SO_2$ as defined in 40 CFR §60.4385 for all periods of unit operation, including startup, shutdown and malfunction and related corrective actions taken in accordance with excess emissions reporting requirements. If the Permittee elects to demonstrate compliance with the $SO_2$ emissions limit in 40 CFR §60.4330 using methods described in §60.4415(a), the Permittee shall submit periodic representative fuel sampling records as part of the quarterly report to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter. **[Reference: COMAR 26.11.01.07C & CPCN Case No. 9318, Conditions A-IV-7. A-IV-18, A-IV-23 & A-IV-26]**

E. Control of VOC Emissions

The Permittee shall submit the following:

a) A test protocol to the Department, for approval, at least 30 days prior to the scheduled test date.

b) Report the results of the stack tests to the Department within 60 days of completion of the tests.

c) Quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in Table IV-25, Condition H.

**[Reference: CPCN Case No. 9318, Conditions A-IV-7, A-IV-18 & A-III-8]**

| Table IV – 17 | |
|---|---|
| | F. Control of Carbon Monoxide (CO) Emissions<br>The Permittee shall submit the following:<br>a) CEMS System Downtime Reports as required by COMAR 26.11.01.11E(1).<br>b) Quarterly CEMS Summary Reports as required by COMAR 26.11.01.11E(2)(c). [COMAR 26.11.01.11E]. **[Reference: CPCN Case No. 9318, Condition A-IV-22]**<br>c) Quarterly reports of excess emissions and monitor downtime associated with the GE Frame 7 CTs, in accordance with 40 CFR §60.7(c). **[Reference: CPCN Case No. 9318, Condition A-IV-23]**<br>d) Quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in Table IV-25, Condition H.<br><br>G. Control of Ammonia Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. **[Reference: CPCN Case No. 9318, Conditions A-IV-7 & A-IV-18]**<br><br>H. Control of GHG Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. **[Reference: CPCN Case No. 9318, Conditions A-IV-7 & A-IV-18]**<br>The Permittee shall submit the following:<br>a) Quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in Table IV-25, Condition H.<br>b) Electronic quarterly reports from the DAHS of $CO_2$ emissions to the EPA Clean Air Markets Business System as specified in 40 CFR §75.64. [40 CFR §75.64]. **[Reference: CPCN Case No. 9318, Condition A-IV-20]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| Table IV – 18 | |
|---|---|
| **18.0** | **Emissions Unit Number(s): S029 & S030 – Auxiliary Boilers** |

| Table IV – 18 | |
|---|---|
| | **S029 & S030** – (009-0021-5-0080).<br>Two (2) Cleaver Brooks natural gas fired auxiliary boilers each rated at 424 MMBtu/hr. heat input (rated at 427 MMBtu/hr. while firing station process natural gas), each equipped with low $NO_x$ burners, SCRs, and oxidation catalysts. |
| 18.1 | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.09.05** - Visible Emissions.<br>"**A.** Fuel Burning Equipment.<br>(**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.<br>(**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:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period. "<br><br>B. Control of Particulate Matter Emissions<br>**PM**: The auxiliary boilers are subject to the PM Filterable BACT limit of 0.005 lb./MMBtu (filterable only).<br><br>**$PM_{10}$**: The auxiliary boilers are subject to the $PM_{10}$ BACT limit of 0.014 lb./MMBtu (filterable and condensable) of heat input, except during periods of startup and shutdown. Furthermore, auxiliary boilers are subject to $PM_{10}$ BACT limits of 296.8 lbs./startup event and 4.9 lbs./shutdown event (filterable and condensable) for each unit.<br><br>**$PM_{2.5}$**: The auxiliary boilers are subject to the $PM_{2.5}$ BACT limit of 0.014 lb./MMBtu (filterable and condensable) of heat input, except during periods of startup and shutdown. Furthermore, auxiliary boilers are subject to $PM_{2.5}$ BACT limits of 296.8 lbs./startup event and 4.9 lbs./shutdown event (filterable and condensable) for each unit.<br>**[Reference: CPCN Case No. 9318, Condition A-V-3]**<br><br>*See Table IV-25 for additional requirements.*<br><br>C. Control of Sulfur Oxides |

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**COMAR 26.11.09.07** - Control of Sulfur Oxides from Fuel Burning Equipment.

**A.** Sulfur Content Limitations for Fuel. A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations:

(**1**) In Areas I, II, V, and VI: (**d**) Process gas used as fuel, 0.3 percent.

D. Control of Nitrogen Oxides

The auxiliary boilers are subject to the NOx emission limits as listed in NSPS subpart Db, COMAR 26.11.09.08B(1)(c) and COMAR 26.11.09.08G(1). Furthermore, the auxiliary boilers are subject to the NOx BACT and LAER limits as follows: 0.0099 lbs./MMBtu except during periods of startup or shutdown. The auxiliary boilers are subject to NOx BACT and LAER limits of 2,946.2 lbs./startup event and 38.9 lbs./shutdown event for each unit. **[Reference: CPCN Case No. 9318, Condition A-V-3 & A-V-4**].

**NSPS**: **§60.44b -** Standard for nitrogen oxides (NOx).

(a) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NOx (expressed as $NO_2$) in excess of the following emission limits:

| Fuel/steam generating unit type | Nitrogen oxide emission limits (expressed as $NO_2$) heat input at all times (30 day rolling average) | |
|---|---|---|
| | ng/J | lb./MMBtu |
| (1) Natural gas and distillate oil, except (4): | | |
| (ii) High heat release rate | 86 | 0.20 |

**COMAR 26.11.09.08B.** - General Requirements and Conditions.

(**1**) Emission Standards and Requirements.

(**c**) Emission Standards in Pounds of NOx per Million Btu of heat input. – Gas only: 0.2. "

Startup as it relates to the auxiliary boilers is defined as the period of time from initiation of fuel combustion until the unit reaches at least 25% load. (Stable above 25% load for 15 consecutive minutes). **[Reference: CPCN Case No. 9318, Condition A-II-4]**

| Table IV – 18 | |
|---|---|
| | Shutdown as it relates to the auxiliary boilers is defined as the period of time during which the auxiliary boiler steam output is lowered with the intent to shut down, beginning at the point at which the unit reaches at least 25% load. **[Reference: CPCN Case No. 9318, Condition A-II-5]**<br>*Note: BACT and LAER limit is more stringent than NSPS and COMAR limits.*<br><br>*See Table IV-25 for additional requirements.*<br><br>E. Control of Ammonia Emissions<br>The auxiliary boilers are subject to a limit of 5 ppmvd at 15% O2 (24-hr block average) for ammonia slip from the SCRs. [**Reference: COMAR 26.11.02.02H and CPCN Case No. 9318, Condition A-V-3]**<br><br>F. Control of Carbon Monoxide Emissions<br>The auxiliary boilers are subject to a **CO BACT** emission limit of 0.0088lb/MMBtu (3-hr block average), except during periods of startup and shutdown. Furthermore, the auxiliary boilers are subject to the CO BACT emission limit of 2,618.5 lbs./startup event and 35.9 lbs./shutdown event for each unit. [**Reference: CPCN Case No. 9318, Condition A-V-3]**<br><br>*See Table IV-25 for additional requirements.*<br><br>G. Control of GHG Emissions<br>The auxiliary boilers are subject to the $CO_2e$ BACT emission limit of 117 lb./MMBtu (3-hr block average). [**Reference: CPCN Case No. 9318, Condition A-V-3]**<br><br>*See Table IV-25 for additional requirements.*<br><br>H. Control of VOC Emissions<br>The auxiliary boilers are subject to the VOC LAER limit of 0.001 lb./MMBtu of heat input, except during periods of startup and shutdown. Furthermore, auxiliary boilers are subject to VOC LAER limits of 130.6 lbs./startup event and 1.8 lbs./shutdown event for each unit.<br>**[Reference: CPCN Case No. 9318, Condition A-V-4]**<br><br>*See Table IV-25 for additional requirements.* |
| **18.2** | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Monitoring Requirements. |

| Table IV – 18 | |
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| | B. Control of Particulate Matter Emissions<br>The Permittee shall conduct annual performance testing using EPA Method 5 or equivalent method approved by MDE-ARA to demonstrate compliance with **PM** emission limit.<br>The Permittee shall conduct annual performance testing using EPA Methods 201A/202 or equivalent method approved by MDE-ARA to demonstrate compliance with the **$PM_{10}$** and **$PM_{2.5}$** emission limit.<br>**[Reference: CPCN Case No. 9318, Conditions A-V-7(a & b) and A-V-8]**<br><br>C. Control of Sulfur Oxides<br>See Monitoring Requirements.<br><br>D. Control of Nitrogen Oxides<br>See Record Keeping Requirements.<br><br>E. Control of Ammonia Emissions<br>The Permittee shall conduct performance testing at least once every five years using EPA Method CTM-027 or equivalent method approved by MDE-ARA to demonstrate compliance with **ammonia** emission limit.<br>**[Reference: CPCN Case No. 9318, Conditions A-V-8 and A-V-7(a & b)]**<br><br>F. Control of Carbon Monoxide Emissions<br>The Permittee shall conduct annual performance testing using EPA Method 10 or equivalent method approved by MDE-ARA or CEMs installed and certified under 40 CFR 60 Appendix B and F. **[Reference: CPCN Case No. 9318, Conditions A-V-8 and A-V-7(a & b)]**<br><br>G. Control of GHG Emissions<br>The Permittee shall conduct annual performance tests for $CO_2$ using EPA Method 3A or equivalent method approved by MDE-ARA or CEMs installed and certified under 40 CFR 60 Appendix B and F. **[Reference: CPCN Case No. 9318, Conditions A-V-8 and A-V-7(a & b)]**<br><br>H. Control of VOC Emissions<br>The Permittee shall conduct annual performance testing using EPA Method 18/25A or equivalent method approved by MDE-ARA or CEMs installed and certified under 40 CFR 60 Appendix B and F. **[Reference: CPCN Case No. 9318, Conditions A-V-8 and A-V-7(a & b)]** |
| **18.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions |

| Table IV – 18 | |
|---|---|
| | The Permittee shall conduct visible observations in accordance with EPA Reference Method 22 for six consecutive minutes at least once each calendar quarter to verify that there are no visible emissions during operation. If visible emissions are observed, the Permittee shall inspect combustion control system, perform necessary adjustments and/or repairs with 48 hours and document in writing the results of the inspection, adjustments and/or repairs. After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, the Permittee shall perform Method 9 observations once daily for at least 1 hour until corrective actions have reduced the visible emissions to less than 20 percent opacity. **[Reference: COMAR 26.11.02.02(H) & COMAR 26.11.03.06C]**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall install fuel flow meter and continuously monitor the fuel flow for each auxiliary boiler. **[Reference: CPCN Case No. 9318, Conditions A-V-16]**<br><br>C. Control of Sulfur Oxides<br>The Permittee shall install a fuel flow meter on each auxiliary boiler and continuously monitor the fuel flow to each auxiliary boiler. **[Reference: CPCN Case No. 9318, Condition A-V-16]**<br><br>D. Control of Nitrogen Oxides<br>The Permittee shall continuously monitor NOx emissions via CEMS. **[Reference: 40 CFR 60.48b(b) and CPCN Case No. 9318, Condition A-V-8]**<br><br>E. Control of Ammonia Emissions<br>See Record Keeping Requirements.<br><br>F. Control of Carbon Monoxide Emissions<br>See Record Keeping Requirements.<br><br>G. Control of GHG Emissions<br>Unless otherwise approved by MDE-ARA, the Permittee shall install a $CO_2$ CEMS or calibrated in-line fuel flew meters as specified under 40 CFR 75.10(3) to measure $CO_2$ emissions associated with the production of electricity. The Permittee shall conduct an annual combustion tune-up in the auxiliary boilers to ensure efficient operation. All monitoring devices required to demonstrate continuous compliance shall be installed, calibrated and maintained according to manufacturer's specification. |

| Table IV – 18 | |
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| | **[Reference: CPCN Case No. 9318, Condition A-V-13, A-V-14, & A-V-18 and 40 CFR 75.10(3)]**<br><br>H. Control of VOC Emissions<br>The Permittee shall calculate emissions based on fuel flow and emission factors developed during annual stack testing and update emissions on a rolling 12-month basis. The Permittee shall continuously monitor and record inlet and outlet catalyst bed temperature. **[Reference: CPCN Case No. 9318, Condition A-V-12]** |
| **18.4** | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall record any incidences of visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C].**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall maintain the following on site or electronically for at least 5 years: records of annual performance testing results; record fuel flow monthly, and annual fuel use records and shall submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-V-16 & A-V-25]**<br><br>C. Control of Sulfur Oxides<br>The Permittee shall record the fuel flow monthly and maintain annual fuel use records on site or electronically for not less than 3 years and make these records available to MDE-ARA upon request. **[Reference: CPCN Case No. 9318, Condition A-V-16 & A-V-25 and COMAR 26.11.09.08K]**<br><br>D. Control of Nitrogen Oxides<br>The Permittee shall maintain all applicable $NO_x$ recordkeeping requirements for each of the auxiliary boilers as specified in 40 CFR §60.49(b) on site for at least five years and submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-V-19]**<br><br>E. Control of Ammonia Emissions<br>The Permittee shall maintain records of performance testing results on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05 & COMAR 26.11.03.06C]** |

| Table IV – 18 | |
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| | F. Control of Carbon Monoxide Emissions<br>The Permittee shall maintain records of performance testing results on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.03.06C]**<br><br>G. Control of GHG Emissions<br>The Permittee shall hourly record and monitor emissions of $CO_2$ from the auxiliary boilers utilizing a DAHS installed, calibrated and maintained in accordance with 40 CFR 75 on site for at least five years and submit to the Department upon request. **[Reference: CPCN Case No. 9318, Condition A-V-13, 40 CFR 75.10(3)]**<br><br>H. Control of VOC Emissions<br>The Permittee shall maintain records of performance testing results and monitoring data on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.03.06C]** |
| 18.5 | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall submit to MDE-ARA the results of visible emissions observations in each quarterly report. **[Reference: CPCN Case No. 9318, Condition A-V-24]**<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Particulate Matter Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-V-7(a & b). A-V-20 & A-III-8]**<br><br>C. Control of Sulfur Oxides<br>See Record Keeping Requirements.<br><br>D. Control of Nitrogen Oxides<br>The Permittee shall submit the following: |

| Table IV – 18 |
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| a) CEMS System Downtime Reports as required by COMAR 26.11.01.11E(1).<br>b) Quarterly CEMS Summary Reports as required by COMAR 26.11.01.11E(2)(c). [COMAR 26.11.01.11E].<br>c) Quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in Table IV-25, Condition H.<br>**[Reference: CPCN Case No. 9318, Condition A-V-22 & A-III-8 and COMAR 26.11.01.11E]**<br><br>E. Control of Ammonia Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. **[Reference: CPCN Case No. 9318, Conditions A-V-7(a & b) & A-V-20]**<br><br>F. Control of Carbon Monoxide Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. **[Reference: CPCN Case No. 9318, Conditions A-V-7(a & b) & A-V-20]**<br>The Permittee shall submit quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Condition A-V-22 and COMAR 26.11.01.11E]**<br><br>G. Control of GHG Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. **[Reference: CPCN Case No. 9318, Conditions A-V-7 & A-V-20]**<br>The Permittee shall submit the following:<br>a) Results of the combustion tune-up required to satisfy the GHG BACT compliance demonstration in the quarterly report. **[Reference: CPCN Case No. 9318, Condition A-V-23]**<br>b) Quarterly reports to MDE-ARA to be postmarked by the 30th day of the |

| Table IV – 18 | |
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| | month following the end of each calendar quarter containing the information listed in Table IV-25, Condition H.<br><br>H. Control of VOC Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. The Permittee shall submit quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-V-7, A-V-20 & A-III-8]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

| Table IV-18a | |
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| **COMPLIANCE ASSURANCE MONITORING REQUIREMENTS – PART 64** | |
| **Emission Unit: Oxidization Catalyst for the Auxiliary Boilers (S029 and S030).** | |
| **Applicable Requirement** | **Limit: 0.0088 lb./MMBtu of CO emissions except during periods of startup and shutdown.** |
| | |
| I. Indicator Number 1 | **Inlet catalyst bed temperature** |
| Measurement Approach | Thermocouple installed at the inlet of the catalyst. |
| II. Indicator Range | 400 °F – 1,050 °F during normal operations |
| III. **Performance Criteria** | |
| A. Data Representativeness | The monitoring system consists of a thermocouple located in the catalyst inlet ductwork |
| B. QA/QC Practices and Criteria | Thermocouples calibrated annually by comparison against an instrument of known accuracy. |
| C. Monitoring Frequency | Continuous. |
| D. Data Collection Procedures | The catalyst inlet temperatures readings are recorded electronically. |
| E. Averaging Periods and Excursions | 24-hour block average temperature must be within the acceptable indicator range |
| | |

| | |
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| I. Indicator Number 2 | Outlet catalyst bed temperature |
| Measurement Approach | Thermocouple installed at the outlet of the catalyst. |
| II. Indicator Range | 400 °F – 1,050 °F during normal operations |
| III. **Performance Criteria** | |
| A. Data Representativeness | The monitoring system consists of a thermocouple located in the catalyst ductwork. |
| B. QA/QC Practices and Criteria | Thermocouples calibrated annually by comparison against an instrument of known accuracy. |
| C. Monitoring Frequency | Continuous. |
| D. Data Collection Procedures | The catalyst outlet temperature readings are recorded electronically. |
| E. Averaging Periods and Excursions | 24-hour block average temperature must be within the acceptable indicator range. |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| **Table IV – 19** | |
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| **19.0** | **Emissions Unit Number(s): S034– Emergency Generator**<br><br>**S034**– (009-0021-9-0092).<br>One (1) Emergency diesel fired generator rated at 1502 hp. |
| **19.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.09.05** - Visible Emissions.<br>**E.** Stationary Internal Combustion Engine Powered Equipment.<br>"(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.<br>(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.<br>(4) Exceptions.<br>(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.<br>(b) Section E(2) of this regulation does not apply to emissions resulting |

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| | directly from cold engine start-up and warm-up for the following maximum periods:<br>(i) Engines that are idled continuously when not in service: 30 minutes;<br>(ii) All other engines: 15 minutes.<br>(c) Section E(2) and (3) of this regulation do not apply while maintenance, repair, or testing is being performed by qualified mechanics."<br><br>B. Control of Particulate Matter Emissions<br>**PM**: The emergency generator is subject to the PM Filterable BACT and NSPS emission limit of 0.20 g/kW-hr (0.15 g/hp-hr.). **[Reference: CPCN Case No. 9318, Condition A-VI-6]**<br><br>**$PM_{10}$**: The emergency generator is subject to the $PM_{10}$ (filterable and condensable) BACT emission limit of 0.23 g/kW-hr (0.17 g/hp-hr.). **[Reference: CPCN Case No. 9318, Condition A-VI-6]**<br><br>**$PM_{2.5}$**: The emergency generator is subject to the $PM_{2.5}$ (filterable and condensable) BACT emission limit of 0.23 g/kW-hr (0.17 g/hp-hr.). **[Reference: CPCN Case No. 9318, Condition A-VI-6]**<br><br>*See Table IV-25 for additional requirements.*<br><br>C. Control of Sulfur Oxides<br>**COMAR 26.11.09.07** - Control of Sulfur Oxides from Fuel Burning Equipment.<br>**A.** Sulfur Content Limitations for Fuel. A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations:<br>(**1**) In Areas I, II, V, and VI: (**d**) Process gas used as fuel, 0.3 percent.<br><br>The emergency generator shall be fueled with ULSD only with a sulfur content not to exceed 15 ppmw. **[Reference: CPCN Case No. 9318, Condition A-VI-3]**<br><br>The diesel fuel combusted in the emergency generator must meet the requirements of 40 CFR §60.4207. In addition, to satisfy **BACT and LAER** requirements, only ultra-low sulfur diesel (ULSD) shall be used. **[Reference: CPCN Case No. 9318, Condition A-VI-3 and 40 CFR §60.4207]**<br><br>D. Control of Nitrogen Oxides<br>**COMAR 26.11.09.08G**. Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a |

| Table IV – 19 | |
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| | Capacity Factor Greater than 15 Percent.<br>"(1) A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall:<br>(a) Provide certification of the capacity factor of the equipment to the Department in writing;<br>(b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;<br>(c) Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request;<br>(d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and<br>(e) Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request."<br>*Note: BACT and LAER limit is more stringent than NSPS and COMAR limits.*<br><br>*See Table IV-25 for additional requirements.*<br><br>E. Control of Carbon Monoxide Emissions<br>The emergency generator is subject to a **CO BACT** and **NSPS** emission limit of 3.5 g/kW-hr (2.6 g/hp-hr.). **[Reference: CPCN Case No. 9318, Condition A-VI-6 and A-VI-8 and NSPS IIII]**<br><br>*See Table IV-25 for additional requirements.*<br><br>F. Control of GHG Emissions<br>GHG emissions from the emergency generator must be calculated and included in the project-wide GHG 12-month rolling limit. **[Reference: CPCN Case No. 9318, Condition A-VI-6]**<br><br>*See Table IV-25 for additional requirements.*<br><br>G. Control of NSPS<br>The emergency generator is required to complied with NSPS 40 CFR §60, Subpart IIII<br>New Source Performance Standards (**NSPS**) under 40 CFR Part 60 Subpart IIII for Stationary Compression Ignition Internal Combustion Engines. |

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| | Note: Beginning October 1, 2010, installations subject to 40 CFR Part 60, Subpart IIII must comply with the diesel fuel standards of §60.4207 which limit the maximum sulfur content of the fuel to 15 ppm.<br>(1) This permit is valid only for the installation of an emergency diesel generator with piston displacement less than 10 liters per cylinder.<br>(2) The provisions of 40 CFR Part 60, Subpart IIII apply if the emergency diesel generator uses a diesel engine manufactured after April 1, 2006 **[Reference: §60.4200]**.<br>(3) An emergency diesel generator or diesel engine subject to the requirements of 40 CFR 60, Subpart IIII ("NSPS emergency diesel generator" or "NSPS emergency diesel engine") shall be equipped with a non-resettable hour meter **[Reference: §60.4209(a)].**<br>(4) The Permittee shall only purchase emergency diesel generator certified to meet the emission standards of §60.4205(b). The fire pump engines must be installed and configured according to the manufacturer's specifications.**[Reference: §60.4211(c)]**<br>(5) The Permittee must operate and maintain emergency diesel generator that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine. **[Reference: §60.4206]**<br><br>The emergency generator is subject to the **NMHC and $NO_x$ BACT, LAER and NSPS** emission limit of 6.4 g/kW-hr (4.8 g/hp-hr.). **[Reference: CPCN Case No. 9318, Conditions A-VI-6 & A-VA-8 and NSPS IIII]**.<br><br>H. Control of HAPs<br>National Emissions Standards for Hazardous Air Pollutants (**NESHAP**) promulgated under 40 CFR 63, Subparts A and ZZZZ for Reciprocating Internal Combustion Engines<br>"**§63.6590** - What parts of my plant does this subpart cover?<br>This subpart applies to each affected source.<br>(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of **40 CFR part 60 subpart IIII**, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. *No further requirements apply for such engines under this part.*<br>(1) A new or reconstructed stationary RICE located at an area source."<br><br>I. Operational Limits<br>The Permittee is restricted to operating the emergency generator to no more than 100 hours per calendar year for routine maintenance and testing. **[Reference: 40 CFR §60.4211(f) and CPCN Case No. 9318,** |

| Table IV – 19 | |
|---|---|
| | **Conditions A-VI-5].** |
| **19.2** | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>**PM, $PM_{10}$ & $PM_{2.5}$**: See Monitoring Requirements.<br><br>C. Control of Sulfur Oxides<br>See Monitoring Requirements.<br><br>D. Control of Nitrogen Oxides<br>The Permittee shall conduct a combustion analysis for each installation that operates more than 500 hours during a calendar year. Each operator of an installation shall attend operator training program at least once every 3 years, on combustion optimization that are sponsored by MDE, EPA or equipment vendors. **[Reference: COMAR 26.11.09.08G(1)]**<br><br>E. Control of Carbon Monoxide Emissions<br>See Monitoring Requirements.<br><br>F. Control of GHG Emissions<br>See Monitoring Requirements.<br><br>G. Control of NSPS<br>See Monitoring Requirements.<br><br>H. Control of HAPs<br>See Monitoring Requirements<br><br>I. Operational Limits<br>See Monitoring Requirements. |
| **19.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>**PM**: Emissions must be calculated using NSPS Subpart IIII emissions standards and hours of operation. Monthly emissions totals shall be used |

| Table IV – 19 | |
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| | to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VI-12]**<br><br>**$PM_{10}$**: $PM_{10}$ filterable emissions must be calculated using NSPS Subpart IIII emissions standards and hour of operation. $PM_{10}$ condensable emissions must be calculated using AP-42 emissions factors and hours of operation. Monthly emissions tool must be used to calculate 12-month rolling period **[Reference: CPCN Case No. 9318, Condition A-VI-12]**<br><br>**$PM_{2.5}$**: $PM_{2.5}$ filterable emissions must be calculated using NSPS Subpart IIII emissions standards and hour of operation. $PM_{2.5}$ condensable emissions must be calculated using AP-42 emissions factors and hours of operation. Monthly emissions tool must be used to calculate 12-month rolling period **[Reference: CPCN Case No. 9318, Condition A-VI-12]**<br><br>C. Control of Sulfur Oxides<br>The Permittee must obtain a certification from the fuel supplier that states that the fuel oil is in compliance with the sulfur in fuel limitation. **[Reference: COMAR 26.11.03.06C]**<br><br>D. Control of Nitrogen Oxides<br>See Record Keeping Requirements.<br><br>E. Control of Carbon Monoxide Emissions<br>Emissions must be calculated using NSPS Subpart IIII emissions standards and hours of operation. Monthly emissions totals shall be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VI-12]**<br><br>F. Control of GHG Emissions<br>GHG emissions must be calculated using emission factors from 40 CFR 98 Subpart C for $CO_2$, $CH_4$ and $N_2O$, GWPs of 25 for $CH_4$, 298 for $N_2O$ and hours of operations, **[Reference: CPCN Case No. 9318, Condition A-VI-12]**<br><br>G. Control of NSPS<br>The emergency generator must be equipped with, and the Permittee must maintain a non-resettable operating hour meter, or equivalent, to indicate the elapsed operating time. **[Reference: CPCN Case No. 9318, Condition A-VI-10 and A-VI-11]**<br><br>Emissions must be calculated using NSPS Subpart IIII emissions standards and hours of operation. Monthly emissions totals shall be used |

| Table IV – 19 | |
|---|---|
| | to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VI-12]**<br><br>H. Control of HAPs<br>See Monitoring Requirements<br><br>I. Operational Limits<br>The emergency generator must be equipped with, and the Permittee must maintain a non-resettable operating hour meter or equivalent to indicate the elapsed operating time. **[Reference: CPCN Case No. 9318, Condition A-VI-10 and A-VI-11]** |
| **19.4** | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall record of any incidences of visible emissions and the corrective actions for at least five years. **[Reference: COMAR 26.11.03.06C].**<br><br>B. Control of Particulate Matter Emissions<br>**PM, $PM_{10}$ & $PM_{2.5}$**: The Permittee shall maintain vendor guarantees to demonstrate compliance with the BACT emissions limits on site for at least five years and submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-VI-12]**<br><br>C. Control of Sulfur Oxides<br>The Permittee shall maintain records of fuel supplier purchase receipts/certification and annual fuel use records on site or electronically for not less than 3 years and make these records available to MDE-ARA upon request.<br>The fuel supplier certifications for each fuel delivery that documents the sulfur content of the ultra-low sulfur diesel (ULSD) is 15 ppm sulfur by weight or less shall include the following information:<br>a) The name of the oil supplier;<br>b) The date of the delivery;<br>c) The amount of fuel delivered to the site; and<br>d) A statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR 80.510.<br>**[Reference: CPCN Case No. 9318, Condition A-VI-16 & A-VI-17 and COMAR 26.11.09.08K(3)]** |

| Table IV – 19 | |
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| | D. Control of Nitrogen Oxides<br>The Permittee shall maintain records required by COMAR 26.11.09.08G(1) on site for at least five years and submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-VI-15 and COMAR 26.11.09.08G(1)]**<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee shall maintain vendor guarantees to demonstrate compliance with the BACT emissions limits on site for at least five years and submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-VI-12]**<br><br>F. Control of GHG Emissions<br>The Permittee shall maintain records of 12-month rolling $CO_2e$ emissions on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>G. Control of NSPS<br>The Permittee shall maintain records onsite or electronically of the hours of operation of the emergency generator including date, time, and duration and an explanation of reasons for operation of the engine and all applicable record keeping requirements for the emergency generator as specified in 40 CFR §60.4214. **[Reference: CPCN Case No. 9318, Condition A-VI-13 and A-VI-14].**<br><br>The Permittee shall obtain vendor guarantee to demonstrate compliance with the BACT and LAER emissions limits. **[Reference: CPCN Case No. 9318, Condition A-VI-12].**<br><br>H. Control of HAPs<br>See NSPS Requirements<br><br>I. Operational Limits<br>The Permittee shall maintain records on site or electronically of the hours of operation of the emergency generator, including time, date and duration and an explanation of reasons for operation and make available to the Department upon request. **[Reference: CPCN Case No. 9318, Condition A-VI-14].** |
| **19.5** | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related |

| Table IV – 19 | |
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| | corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Particulate Matter Emissions<br>**PM, $PM_{10}$ & $PM_{2.5}$**: See Record Keeping Requirements.<br><br>C. Control of Sulfur Oxides<br>The Permittee shall submit report fuel supplier certification to the Department upon request. The Permittee must provide fuel supplier certifications for each fuel delivery that documents the sulfur content of the ultra-low sulfur diesel (ULSD) is 15 ppm sulfur by weight or less. Fuel supplier certification shall include the following information: 1) the name of the oil supplier; 2) the date of the delivery; 3) the amount of fuel delivered to the site; and 4) a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR 80.150. **[Reference: CPCN Case No. 9318, Conditions A-VI-16 and COMAR 26.11.09.07C]**<br><br>D. Control of Nitrogen Oxides<br>The Permittee shall submit certification of the capacity factor of the equipment to MDE-ARA in writing. **[Reference: COMAR 26.11.09.08G(1)]**<br><br>E. Control of Carbon Monoxide Emissions<br>See Record Keeping Requirements.<br><br>F. Control of GHG Emissions<br>See Record Keeping Requirements.<br><br>G. Control of NSPS<br>See Record Keeping Requirements<br><br>H. Control of HAPs<br>See NSPS Requirements.<br><br>I. Operational Limits<br>See Record Keeping Requirements. |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| Table IV – 20 |
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| Table IV – 20 | |
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| **20.0** | **Emissions Unit Number(s): Five (5) Fire Pump Engines**<br><br>(009-0021-9-0093).<br>Five (5) Fire Pump Engines each rated at 350 hp. |
| **20.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.09.05** - Visible Emissions.<br>**E**. Stationary Internal Combustion Engine Powered Equipment.<br>"(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.<br>(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.<br>(4) Exceptions.<br>(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.<br>(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:<br>(i) Engines that are idled continuously when not in service: 30 minutes;<br>(ii) All other engines: 15 minutes.<br>(c) Section E(2) and (3) of this regulation do not apply while maintenance, repair, or testing is being performed by qualified mechanics."<br><br>B. Control of Particulate Matter Emissions<br>**PM**: The fire pump engines are subject to the PM Filterable BACT and NSPS emission limit of 0.20 g/kW-hr (0.15 g/hp-hr.). **[Reference: CPCN Case No. 9318, Condition A-VI-7 and NSPS IIII]**<br><br>**$PM_{10}$**: The fire pump engines are subject to the $PM_{10}$ (filterable and condensable) BACT emission limit of 0.23 g/kW-hr (0.17 g/hp-hr.). **[Reference: CPCN Case No. 9318, Condition A-VI-7]**<br><br>**$PM_{2.5}$**: The fire pump engines are subject to the $PM_{2.5}$ (filterable and condensable) BACT emission limit of 0.23 g/kW-hr (0.17 g/hp-hr.). **[Reference: CPCN Case No. 9318, Condition A-VI-7]**<br><br>*See Table IV-25 for additional requirements.* |

| Table IV – 20 | |
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| | C. Control of Sulfur Oxides<br>The fire pumps engines shall be fueled with ULSD only with a sulfur content not to exceed 15 ppmw. **[Reference: CPCN Case No. 9318, Condition A-VI-3]**<br><br>The diesel fuel combusted in the five fire pump engines must meet the requirements of 40 CFR §60.4207. In addition, to satisfy **BACT and LAER** requirements, only ultra-low sulfur diesel (ULSD) shall be used. **[Reference: CPCN Case No. 9318, Condition A-VI-3 and 40 CFR §60.4207]**<br><br>D. Control of Nitrogen Oxides<br>**COMAR 26.11.09.08G**. Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.<br>"(1) A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall:<br>(a) Provide certification of the capacity factor of the equipment to the Department in writing;<br>(b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;<br>(c) Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request;<br>(d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and<br>(e) Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request."<br>*Note: BACT and LAER limit is more stringent than NSPS and COMAR limits.*<br><br>*See Table IV-25 for additional requirements.*<br><br>E. Control of Carbon Monoxide Emissions<br>The fire pump engines are subject to a **CO BACT** emission limit of 6.68e-3 lb./hp-hr. (3.0 g/bhp-hr. or 4.0 g/kW-hr). **[Reference: CPCN Case No. 9318, Condition A-VI-7]**<br><br>*See Table IV-25 for additional requirements.* |

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F. Control of GHG Emissions
GHG emissions from the fire pump engines must be calculated and included in the project-wide GHG 12-month rolling limit. **[Reference: CPCN Case No. 9318, Condition A-VI-7]**

*See Table IV-25 for additional requirements.*

G. Control of NSPS
The five fire pump engines are required to complied with NSPS 40 CFR §60, Subpart IIII
New Source Performance Standards (**NSPS**) under 40 CFR Part 60 Subpart IIII for Stationary Compression Ignition Internal Combustion Engines.
Note: Beginning October 1, 2010, installations subject to 40 CFR Part 60, Subpart IIII must comply with the diesel fuel standards of §60.4207 which limit the maximum sulfur content of the fuel to 15 ppm.
(1) This permit is valid only for the installation of an emergency diesel generator with piston displacement less than 10 liters per cylinder.
(2) The provisions of 40 CFR Part 60, Subpart IIII apply if the emergency diesel generator uses a diesel engine manufactured after April 1, 2006 **[Reference: §60.4200]**.
(3) A five pump engines or diesel engine subject to the requirements of 40 CFR 60, Subpart IIII ("NSPS emergency diesel generator" or "NSPS emergency diesel engine") shall be equipped with a non-resettable hour meter **[Reference: §60.4209(a)].**
(4) The Permittee shall only purchase fire pump engines certified to meet the emission standards of §60.4205(b). The fire pump engines must be installed and configured according to the manufacturer's specifications.**[Reference: §60.4211(c)]**
(5) The Permittee must operate and maintain fire pump engines that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine. **[Reference: §60.4206]**

The fire pump engines are subject to the **NMHC and NOx BACT, LAER and NSPS** emission limit of 4.0 g/kW-hr (3.0 g/hp-hr.). **[Reference: CPCN Case No. 9318, Conditions A-VI-7 & A-VA-8 and NSPS IIII]**.

H. Control of HAPs
National Emissions Standards for Hazardous Air Pollutants (**NESHAP**) promulgated under 40 CFR 63, Subparts A and ZZZZ for Reciprocating Internal Combustion Engines

| | **Table IV – 20** |
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| | "**§63.6590** - What parts of my plant does this subpart cover?<br>This subpart applies to each affected source.<br>(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of **40 CFR part 60 subpart IIII**, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. *No further requirements apply for such engines under this part.*<br>(1) A new or reconstructed stationary RICE located at an area source."<br><br>I. Operational Limits<br>The Permittee is restricted to operating each of the five fire pump engines to no more than 100 hours per calendar year for routine maintenance and testing. **[Reference: 40 CFR §60.4211(f) and CPCN Case No. 9318, Conditions A-VI-5]**. |
| **20.2** | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>**PM, $PM_{10}$ & $PM_{2.5}$**: See Monitoring Requirements.<br><br>C. Control of Sulfur Oxides<br>See Monitoring Requirements.<br><br>D. Control of Nitrogen Oxides<br>The Permittee shall conduct a combustion analysis for each installation that operates more than 500 hours during a calendar year. Each operator of an installation shall attend operator training program at least once every 3 years, on combustion optimization that are sponsored by MDE, EPA or equipment vendors. **[Reference: COMAR 26.11.09.08G(1)]**<br><br>E. Control of Carbon Monoxide Emissions<br>See Monitoring Requirements.<br><br>F. Control of GHG Emissions<br>See Monitoring Requirements.<br><br>G. Control of NSPS<br>See Monitoring Requirements. |

| Table IV – 20 | |
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| | H. Control of HAPs<br>See Monitoring Requirements<br><br>I. Operational Limits<br>See Monitoring Requirements. |
| 20.3 | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>**PM**: Emissions must be calculated using NSPS Subpart IIII emissions standards and hours of operation. Monthly emissions totals shall be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VI-12]**<br><br>**$PM_{10}$**: $PM_{10}$ filterable emissions must be calculated using NSPS Subpart IIII emissions standards and hour of operation. $PM_{10}$ condensable emissions must be calculated using AP-42 emissions factors and hours of operation. Monthly emissions tool must be used to calculate 12-month rolling period **[Reference: CPCN Case No. 9318, Condition A-VI-12]**<br><br>**$PM_{2.5}$**: $PM_{2.5}$ filterable emissions must be calculated using NSPS Subpart IIII emissions standards and hour of operation. $PM_{2.5}$ condensable emissions must be calculated using AP-42 emissions factors and hours of operation. Monthly emissions tool must be used to calculate 12-month rolling period **[Reference: CPCN Case No. 9318, Condition A-VI-12]**<br><br>C. Control of Sulfur Oxides<br>The Permittee must obtain a certification from the fuel supplier that states that the fuel oil is in compliance with the sulfur in fuel limitation. **[Reference: COMAR 26.11.03.06C]**<br><br>D. Control of Nitrogen Oxides<br>See Record Keeping Requirements.<br><br>E. Control of Carbon Monoxide Emissions<br>Emissions must be calculated using NSPS Subpart IIII emissions standards and hours of operation. Monthly emissions totals shall be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VI-12]** |

| Table IV – 20 | |
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| | F. Control of GHG Emissions<br>GHG emissions must be calculated using emission factors from 40 CFR 98 Subpart C for $CO_2$, $CH_4$ and $N_2O$, GWPs of 25 for $CH_4$, 298 for $N_2O$ and hours of operations, **[Reference: CPCN Case No. 9318, Condition A-VI-12]**<br><br>G. Control of NSPS<br>The emergency generator must be equipped with, and the Permittee must maintain a non-resettable operating hour meter, or equivalent, to indicate the elapsed operating time. **[Reference: CPCN Case No. 9318, Condition A-VI-10 and A-VI-11]**<br><br>H. Control of HAPs<br>See NSPS Monitoring Requirements<br><br>I. Operational Limits<br>The fire pump engines must be equipped with, and the Permittee must maintain a non-resettable operating hour meter or equivalent to indicate the elapsed operating time. **[Reference: CPCN Case No. 9318, Condition A-VI-10 and A-VI-11]** |
| 20.4 | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall maintain record of any incidences of visible emissions and the corrective actions taken for at least five years. **[Reference: COMAR 26.11.03.06C].**<br><br>B. Control of Particulate Matter Emissions<br>**PM, $PM_{10}$ & $PM_{2.5}$**: The Permittee shall maintain vendor guarantees to demonstrate compliance with the BACT emissions limits on site for at least five years and submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-VI-12]**<br><br>C. Control of Sulfur Oxides<br>The Permittee shall maintain records of fuel supplier purchase receipts/certification and annual fuel use records on site or electronically for not less than 3 years and make these records available to MDE-ARA upon request. **[Reference: COMAR 26.11.03.06C; CPCN Case No. 9318, Condition A-VI-17 and COMAR 26.11.09.08K(3)]** |

| Table IV – 20 | |
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| | D. Control of Nitrogen Oxides<br>The Permittee shall maintain records required by COMAR 26.11.09.08G(1) on site for at least five years and submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-VI-15 and COMAR 26.11.09.08G(1)]**<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee shall maintain vendor guarantees to demonstrate compliance with the BACT emissions limits on site for at least five years and submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-VI-12]**<br><br>F. Control of GHG Emissions<br>The Permittee shall maintain records of 12-month rolling $CO_2e$ emissions on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>G. Control of NSPS<br>The Permittee shall maintain records for a period of at least five years in accordance with applicable NSPS. The Permittee shall maintain fire pump engine certification onsite. The Permittee shall maintain onsite or electronically the hours of operation of the five pump engines including date, time, and duration and an explanation of reasons for operation of the engine and all applicable record keeping requirements for the emergency generator as specified in 40 CFR §60.4214. **[Reference: CPCN Case No. 9318, Condition A-VI-13 and A-VI-14].**<br><br>The Permittee shall obtain vendor guarantee to demonstrate compliance with the BACT and LAER emissions limits. **[Reference: CPCN Case No. 9318, Condition A-VI-12].**<br><br>H. Control of HAPs<br>See NSPS Record Keeping Requirements<br><br>I. Operational Limits<br>The Permittee shall maintain records on site or electronically of the hours of operation of the emergency generator, including time, date and duration and an explanation of reasons for operation and make available to the Department upon request. **[Reference: CPCN Case No. 9318, Condition A-VI-14].** |
| **20.5** | **Reporting Requirements:** |

| Table IV – 20 | |
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| | A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Particulate Matter Emissions<br>**PM, $PM_{10}$ & $PM_{2.5}$**: See Record Keeping Requirements.<br><br>C. Control of Sulfur Oxides<br>The Permittee shall submit report fuel supplier certification to the Department upon request. The Permittee must provide fuel supplier certifications for each fuel delivery that documents the sulfur content of the ultra-low sulfur diesel (ULSD) is 15 ppm sulfur by weight or less. Fuel supplier certification shall include the following information: 1) the name of the oil supplier; 2) the date of the delivery; 3) the amount of fuel delivered to the site; and 4) a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR 80.150. **[Reference: CPCN Case No. 9318, Conditions A-VI-16 and COMAR 26.11.09.07C]**<br><br>D. Control of Nitrogen Oxides<br>The Permittee shall submit certification of the capacity factor of the equipment to MDE-ARA in writing. **[Reference: COMAR 26.11.09.08G(1)]**<br><br>E. Control of Carbon Monoxide Emissions<br>See Record Keeping Requirements.<br><br>F. Control of GHG Emissions<br>See Record Keeping Requirements.<br><br>G. Control of NSPS<br>See Record Keeping Requirements.<br><br>H. Control of HAPs<br>See NSPS Reporting Requirements.<br><br>I. Operational Limits<br>See Record Keeping Requirements. |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

| Table IV – 21 | |
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| 21.0 | **Emissions Unit Number(s): S031: Thermal Oxidizer**<br><br>(009-0021-6-0041).<br>**S031**: Thermal Oxidizer (56 MMBtu/hr.) equipped with SCR and an oxidization catalyst for Pretreatment process. |
| 21.1 | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.06.02C** - Visible Emission Standards.<br>"(1) In Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."<br>**COMAR 26.11.06.02A**. General Exceptions.<br>"(2) The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period."<br><br>B. Control of Particulate Matter Emissions<br>**PM**: The thermal oxidizer is subject to the BACT PM Filterable limit of 0.013 lb./MMBtu. **[Reference: CPCN Case No. 9318, Condition A-VII-2]**<br><br>**$PM_{10}$**: The thermal oxidizer is subject to the $PM_{10}$ (filterable and condensable) BACT limit of 0.016 lb./MMBtu. **[Reference: CPCN Case No. 9318, Condition A-VII-2]**<br><br>**$PM_{2.5}$**: The thermal oxidizer is subject to the $PM_{2.5}$ (filterable and condensable) BACT limit of 0.016 lb./MMBtu. **[Reference: CPCN Case No. 9318, Condition A-VII-2]**<br><br>*See Table IV-25 for additional requirements.*<br><br>C. Control of Sulfur Oxides<br>**COMAR 26.11.06.05** - Sulfur Compounds from Other than Fuel-Burning Equipment.<br>"**B**. Areas I, II, V and VI.<br>(1) A person may not cause or permit the discharge into the atmosphere from installations other than fuel-burning equipment of gases containing |

| Table IV – 21 | |
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| | more than 500 ppm of sulfur dioxide. Installations constructed before January 17, 1972, are limited to not more than 2,000 ppm sulfur dioxide. (2) A person may not cause or permit the discharge into the atmosphere from installations other than fuel-burning equipment of gases containing sulfuric acid, sulfur trioxide, or any combination of them greater than 35 milligrams per cubic meter reported as sulfuric acid. Any installation constructed before January 17, 1972, is limited to not more than 70 milligrams per cubic meter of sulfuric acid, sulfur trioxide, or any combination of them, reported as sulfuric acid."<br><br>D. Control of Nitrogen Oxides<br>The thermal oxidizer is subject to the $NO_x$ BACT and LAER emission limit of 2.5 ppm at 15% $O_2$ (3-hr block average). **[Reference: CPCN Case No. 9318, Condition A-VII-2 and A-V-3]**<br><br>*See Table IV-25 for additional requirements.*<br><br>E. Control of Carbon Monoxide Emissions<br>The thermal oxidizer is subject to a **CO BACT** emission limit 1.5 ppmvd at 15% $O_2$ (3-hr block average) **[Reference: CPCN Case No. 9318, Condition A-VII-2]**<br><br>*See Table IV-25 for additional requirements.*<br><br>F. Control of VOC Emissions<br>The thermal oxidizer is subject to the VOC LAER emissions limit of 0.03 lb./hr. (3-hour block average). **[Reference: CPCN Case No. 9318, Condition A-VII-3]**<br><br>*See Table IV-25 for additional requirements.*<br><br>G. Control of Ammonia Emissions<br>The thermal oxidizer is subject to a limit of 5 ppmvd at 15% $O_2$ (24-hr block average) for ammonia slip from the SCR. Furthermore, to satisfy T-BACT requirements, ammonia slip shall be maintained by not injecting ammonia until the SCR reaches an appropriate operating temperature. **[Reference: CPCN Case No. 9318, Conditions A-VII-4 & COMAR 26.11.15.05]**. |
| **21.2** | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Monitoring Requirements. |

| Table IV – 21 | |
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| | B. Control of Particulate Matter Emissions<br>The Permittee shall conduct annual performance testing using EPA Method 5 or equivalent method approved by MDE-ARA to demonstrate compliance with **PM** emission limit.<br>The Permittee shall conduct annual performance testing using EPA Methods 201A/202 or equivalent method approved by MDE-ARA to demonstrate compliance with the **$PM_{10}$** and **$PM_{2.5}$** emission limit.<br>**[Reference: CPCN Case No. 9318, Conditions A-IV-7, A-VII-6, and A-VII-7]**<br><br>C. Control of Sulfur Oxides<br>See Record Keeping Requirements.<br><br>D. Control of Nitrogen Oxides<br>The Permittee shall conduct annual performance testing using EPA Methods 7E or equivalent method approved by MDE-ARA to demonstrate compliance with the **$NO_x$** emission limit. **[Reference: CPCN Case No. 9318, Conditions A-VII-6 and A-VII-7]**<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee shall conduct annual performance testing using EPA Methods 10 or equivalent method approved by MDE-ARA to demonstrate compliance with the **CO** emission limit. **[Reference: CPCN Case No. 9318, Conditions A-VII-6 and A-VII-7]**<br><br>F. Control of VOC Emissions<br>The Permittee shall conduct annual performance testing using EPA Methods 18/25A or equivalent method approved by MDE-ARA to demonstrate compliance with the **VOC** emission limit.<br>**[Reference: CPCN Case No. 9318, Conditions A-VII-6 and A-VII-7]**<br><br>G. Control of Ammonia Emissions<br>The Permittee shall conduct performance testing twice (at midpoint and at renewal) during the 5-year period using EPA Methods CTM-027 or equivalent method approved by MDE-ARA to demonstrate compliance with the ammonia emission limit.<br>**[Reference: CPCN Case No. 9318, Conditions A-VII-6 and A-VII-7 & COMAR 26.11.03.06C]** |
| **21.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions |

| Table IV – 21 | |
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| | The Permittee shall conduct visible observations in accordance with EPA Reference Method 22 for six consecutive minutes at least once each calendar quarter to verify that there are no visible emissions during operation. If visible emissions are observed, the Permittee shall inspect combustion control system, perform necessary adjustments and/or repairs with 48 hours and document in writing the results of the inspection, adjustments and/or repairs. After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, the Permittee shall perform Method 9 observations once daily for at least 1 hour until corrective actions have reduced the visible emissions to less than 20 percent opacity. **[Reference: COMAR 26.11.02.02(H) & COMAR 26.11.03.06C]**<br><br>B. Control of Particulate Matter Emissions<br>**PM, $PM_{10}$ & $PM_{2.5}$**: Emissions must be calculated based on fuel flow and emission factors developed during annual stack testing and update emissions on a 12-month rolling basis. All monitoring devices required to demonstrate continuous compliance must be installed, calibrated and maintained according to manufacturer's specifications. **[Reference: CPCN Case No. 9318, Condition A-VII-11 and A-VII-13]**<br><br>C. Control of Sulfur Oxides<br>See Record Keeping Requirements.<br><br>D. Control of Nitrogen Oxides<br>The Permittee must calculate emissions based on fuel flow and emission factors developed during annual stack testing and update emissions on a 12-month rolling basis. The Permittee must continuously monitor ammonia feed rate, gas stream flow rate and catalyst bed inlet gas temperature. All monitoring devices required to demonstrate continuous compliance must be installed, calibrated and maintained according to manufacturer's specifications. **[Reference: CPCN Case No. 9318, Condition A-VII-11 and A-VII-13]**<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee must calculate emissions based on fuel flow and emission factors developed during annual stack testing and update emissions on a 12-month rolling basis. The Permittee must continuously monitor and record inlet and outlet catalyst bed temperature. All monitoring devices required to demonstrate continuous compliance must be installed, calibrated and maintained according to manufacturer's specifications. **[Reference: CPCN Case No. 9318, Condition A-VII-11 and A-VII-13]** |

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| | F. Control of VOC Emissions<br>The Permittee must calculate emissions based on fuel flow and emission factors developed during annual stack testing and update emissions on a 12-month rolling basis. The Permittee must continuously monitor and record inlet and outlet catalyst bed temperature. All monitoring devices required to demonstrate continuous compliance must be installed, calibrated and maintained according to manufacturer's specifications. **[Reference: CPCN Case No. 9318, Condition A-VII-11 and A-VII-13]**<br><br>G. Control of Ammonia Emissions<br>See Record Keeping Requirements. |
| 21.4 | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall maintain record of any incidences of visible emissions and the corrective actions taken for at least five years. **[Reference: COMAR 26.11.03.06C].**<br><br>B. Control of Particulate Matter Emissions<br>**PM, $PM_{10}$ & $PM_{2.5}$**: The Permittee shall maintain records of stack testing results on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>C. Control of Sulfur Oxides<br>The Permittee shall maintain records of sulfur emissions on site for at least 5 years and make these records available to MDE-ARA upon request. **[Reference: COMAR 26.11.03.06C]**<br><br>D. Control of Nitrogen Oxides<br>The Permittee shall maintain records of monitoring data and stack test results on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee shall maintain records of monitoring data and stack test results on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>F. Control of VOC Emissions<br>The Permittee shall maintain records of monitoring data and stack testing |

| Table IV – 21 | |
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| | results on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>G. Control of Ammonia Emissions<br>The Permittee shall maintain records of performance testing results on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]** |
| **21.5** | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Particulate Matter Emissions<br>**PM, $PM_{10}$ & $PM_{2.5}$:** The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-VII-6. A-VII-14 & A-III-8]**<br><br>C. Control of Sulfur Oxides<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>D. Control of Nitrogen Oxides<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-VII-6. A-VII-14 & A-III-8]**<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, |

| Table IV – 21 | |
|---|---|
| | at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-VII-6. A-VII-14 & A-III-8]**<br><br>F. Control of VOC Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-VII-6. A-VII-14 & A-III-8]**<br><br>G. Control of Ammonia Emissions<br>The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. **[Reference: CPCN Case No. 9318, Conditions A-VII-6 and A-VII-14]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| Table IV-21a | |
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| **COMPLIANCE ASSURANCE MONITORING REQUIREMENTS – PART 64** | |
| **Emission Unit: Selective Catalytic Reduction (SCR) System for the thermal oxidizer (S031).** | |
| **Applicable Requirement** | **Limit: 2.5 ppmvd at 15% $O_2$ NOx emissions** |
| | |
| I. Indicator Number 1 | **SCR inlet catalyst bed temperature** |
| Measurement Approach | Thermocouple installed at the inlet of the SCR. |
| II. Indicator Range | 400 °F – 1,050 °F during normal operations |
| III. **Performance Criteria** | |

| | |
|---|---|
| A. Data Representativeness | The monitoring system consists of a thermocouple located in the SCR inlet ductwork |
| B. QA/QC Practices and Criteria | Thermocouples calibrated annually by comparison against an instrument of known accuracy. |
| C. Monitoring Frequency | Continuous. |
| D. Data Collection Procedures | The SCR inlet temperatures are recorded electronically. |
| E. Averaging Period | 24-hour block average temperature must be within the acceptable indicator range |
| | |
| I. Indicator Number 2 | **Ammonia feed rate** |
| Measurement Approach | Flowmeter installed on ammonia line to SCR. |
| II. Indicator Range | 4 lb./hr. – 8 lb./hr. during normal operations |
| III. **Performance Criteria** | |
| A. Data Representativeness | The monitoring system consists of a flowmeter located in the ammonia feed line. |
| B. QA/QC Practices and Criteria | Flowmeter calibrated annually. |
| C. Monitoring Frequency | Continuous. |
| D. Data Collection Procedures | The ammonia feed rates are recorded electronically. |
| E. Averaging Period | 24-hour block average flow rate must be within the acceptable indicator range. |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

| **Table IV – 22** | |
|---|---|
| **22.0** | **Emissions Unit Number(s): North Ground Flare**<br><br>N/A.<br>North Ground Flares. |
| **22.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.06.02C** - Visible Emission Standards.<br>"(**1**) In Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building, other than water in |

**Table IV – 22**

an uncombined form, which is greater than 20 percent opacity."
**COMAR 26.11.06.02A**. General Exceptions.
"(**2**) The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications 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 60-minute period."

B. Control of Particulate Matter Emissions
**PM**: The north flare is subject to the PM Filterable BACT emission limit of 0.7 tpy on a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the BACT limit. [**Reference: CPCN Case No. 9318, Condition A-VIII-2]**

**$PM_{10}$ & $PM_{2.5}$**: The thermal oxidizer is subject to the $PM_{10}$ and $PM_{2.5}$ (filterable and condensable) BACT emission limit of 2.8 tpy on a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the BACT limit. [**Reference: CPCN Case No. 9318, Condition A-VIII-2]**

*See Table IV-25 for additional requirements.*

C. Control of Sulfur Oxides
**COMAR 26.11.06.05** - Sulfur Compounds from Other than Fuel-Burning Equipment.
"**B**. Areas I, II, V and VI.
(**1**) A person may not cause or permit the discharge into the atmosphere from installations other than fuel-burning equipment of gases containing more than 500 ppm of sulfur dioxide. Installations constructed before January 17, 1972, are limited to not more than 2,000 ppm sulfur dioxide.
(**2**) A person may not cause or permit the discharge into the atmosphere from installations other than fuel-burning equipment of gases containing sulfuric acid, sulfur trioxide, or any combination of them greater than 35 milligrams per cubic meter reported as sulfuric acid. Any installation constructed before January 17, 1972, is limited to not more than 70 milligrams per cubic meter of sulfuric acid, sulfur trioxide, or any combination of them, reported as sulfuric acid."

D. Control of Nitrogen Oxides
The north flare is subject to the $NO_x$ BACT and LAER emission limit of 69.0 tpy on a 12-month rolling basis at all times. The flare shall use the

| Table IV – 22 | |
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| | presence of pilot flame, good operating practices, proper combustion, and design to achieve the BACT and LAER limit. [**Reference: CPCN Case No. 9318, Condition A-VIII-2 and A-VIII-3**]<br><br>*See Table IV-25 for additional requirements.*<br><br>E. Control of Carbon Monoxide Emissions<br>The north flare is subject to a **CO BACT** emission limit of 31.2 tpy on a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the BACT limit. [**Reference: CPCN Case No. 9318, Condition A-VIII-2**]<br><br>*See Table IV-25 for additional requirements.*<br><br>F. Control of VOC Emissions<br>The north flare is subject to the VOC LAER emissions limit of 10.8 tpy a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the LAER limit. [**Reference: CPCN Case No. 9318, Condition A-VIII-3**]<br><br>*See Table IV-25 for additional requirements.*<br><br>G. Control of BACT for Toxics<br>Emissions from the **north** and south flares shall comply with the T-BACT requirement through the presence of a pilot flames and the use of good operating practices and maintaining proper combustion efficiency. [**Reference: COMAR 26.11.15.05**].<br><br>H. Control of GHG Emissions<br>GHG emissions from the flares shall be calculated and included in the project-wide GHG 12-month rolling limit. [**Reference: CPCN Case No. 9318, Condition A-VIII-7**]<br><br>I. Operational Limit<br>The Permittee must be limited to 10 facility restarts (defined by CPCN Case No. 9318 as the startup if project operations, the period during which mixed refrigerant, propane, and/or natural gas in the system are vented to the **North** and South Flares prior to the startup of the sources) during any 12-month rolling period to meet BACT and LAER requirements. These restarts can be warm or cold facility restarts but venting to flares during any restart must be limited to one hour to each flare (**North** and South) per restart event. [**Reference: CPCN Case No. 9318, Condition A-VIII-5**] |

| Table IV – 22 | |
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| | The Permittee must limit flaring of gas vented from warm ships during the cool-down process to a maximum of 12 events in any 12-month rolling period. **[Reference: CPCN Case No. 9318, Condition A-VIII-6]** |
| **22.2** | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>See Monitoring Requirements.<br><br>C. Control of Sulfur Oxides<br>See Record Keeping Requirements.<br><br>D. Control of Nitrogen Oxides<br>See Monitoring Requirements.<br><br>E. Control of Carbon Monoxide Emissions<br>See Monitoring Requirements.<br><br>F. Control of VOC Emissions<br>See Monitoring Requirements.<br><br>G. Control of BACT for Toxics<br>See Monitoring Requirements<br><br>H. Control of GHG Emissions<br>See Monitoring Requirements.<br><br>I. Operational Limit<br>See Record Keeping Requirements. |
| **22.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>**PM, $PM_{10}$ & $PM_{2.5}$**:The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency. and/or hours of operation as appropriate for the gas stream. Monthly emissions |

| Table IV – 22 | |
|---|---|
| | totals must be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]**<br><br>C. Control of Sulfur Oxides<br>See Record Keeping Requirements.<br><br>D. Control of Nitrogen Oxides<br>The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency and/or hours of operation as appropriate for the gas stream. Monthly emissions totals must be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]**<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency and/or hours of operation as appropriate for the gas stream. Monthly emissions totals must be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]**<br><br>F. Control of VOC Emissions<br>The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency and/or hours of operation as appropriate for the gas stream. Monthly emissions totals must be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]**<br><br>G. Control of BACT for Toxics<br>The Permittee must continuously monitor the presence of a pilot flame. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]**<br><br>H. Control of GHG Emissions<br>$CO_2$, $CH_4$ and $N_2O$ emissions from the flare pilots must be calculated in accordance with the methodology and emission factors noted in 40 CFR 98, Subpart C. $CO_2$, $CH_4$ and $N_2O$ emissions resulting from flaring combusted and uncombusted gas streams during facility restarts and cool-downs must be calculated in accordance with the methodology and emission factors noted in 40 CFR 98, Subpart W and the chemical composition of each gas stream. On a monthly basis, fuel consumption, coupled with the appropriate emission factors and global warming |

| Table IV – 22 | |
|---|---|
| | potentials (1 for $CO_2$, 25 for $CH_4$ and 298 for $N_2O$) must be used to calculate emissions on a $CO_2e$ basis. The sum of these emission rates must establish GHG emissions from the North and South Flare on a $CO_2e$ basis.<br>The Permittee must continuously monitor for the presence of a pilot flame during operations through the use of a thermocouple or equivalent monitoring method. **Reference: CPCN Case No. 9318, Condition A-VIII-7]**<br><br>I. Operational Limit<br>See Record Keeping Requirements. |
| **22.4** | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall maintain record of any incidences of visible emissions and the corrective actions taken for at least five years. **[Reference: COMAR 26.11.03.06C].**<br><br>B. Control of Particulate Matter Emissions<br>**PM, $PM_{10}$ & $PM_{2.5}$**: The Permittee shall maintain records of 12-month rolling **PM** (filterable) **$PM_{10}$ & $PM_{2.5}$** (filterable & condensable) emissions and monitoring data on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>C. Control of Sulfur Oxides<br>The Permittee shall maintain records of sulfur emissions on site for at least 5 years and make these records available to MDE-ARA upon request. **[Reference: COMAR 26.11.03.06C]**<br><br>D. Control of Nitrogen Oxides<br>The Permittee shall maintain records of 12-month rolling $NO_x$ emissions and monitoring data on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee shall maintain records of 12-month rolling CO emissions and monitoring data on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>F. Control of VOC Emissions |

| Table IV – 22 | |
|---|---|
| | The Permittee shall maintain records of 12-month rolling VOC emissions and monitoring data on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>G. Control of BACT for Toxics<br>The Permittee shall maintain records of monitoring data for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>H. Control of GHG Emissions<br>The Permittee shall maintain records of 12-month rolling project-wide GHG emissions on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>I. Operational Limit<br>The Permittee shall maintain records of the number of facility restarts and records of the number of ship cool-down venting events on site for at least five years and submit to the Department upon request. **[Reference: CPCN Case No. 9318, Condition A-VIII-5, A-VIII-6 and COMAR 26.11.01.05]** |
| **22.5** | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Particulate Matter Emissions<br>**PM, $PM_{10}$ & $PM_{2.5}$:** The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**<br><br>C. Control of Sulfur Oxides<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>D. Control of Nitrogen Oxides<br>The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-III-8]** |

| Table IV – 22 | |
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| | E. Control of Carbon Monoxide Emissions<br>The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H..<br>**[Reference: CPCN Case No. 9318, Conditions A-III-8]**<br><br>F. Control of VOC Emissions<br>The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H.<br>**[Reference: CPCN Case No. 9318, Conditions A-III-8]**<br><br>G. Control of BACT for Toxics<br>See Record Keeping Requirements.<br><br>H. Control of GHG Emissions<br>The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H.<br>**[Reference: CPCN Case No. 9318, Conditions A-III-8]**<br><br>I. Operational Limit<br>See Record Keeping Requirements |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| Table IV – 23 | |
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| **23.0** | **Emissions Unit Number(s): South Ground Flare**<br><br>N/A.<br>South Ground Flares. |
| **23.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>**COMAR 26.11.06.02C** - Visible Emission Standards.<br>"(1) In Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity." |

| Table IV – 23 | |
|---|---|
| | **COMAR 26.11.06.02A**. General Exceptions.<br>"(2) The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period."<br><br>B. Control of Particulate Matter Emissions<br>**PM**: The south flare is subject to the PM Filterable BACT emission limit of **0.4 tpy** on a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the BACT limit. [**Reference: CPCN Case No. 9318, Condition A-VIII-2**]<br><br>**$PM_{10}$ & $PM_{2.5}$**: The thermal oxidizer is subject to the $PM_{10}$ and $PM_{2.5}$ (filterable and condensable) BACT emission limit of **1.7 tpy** on a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the BACT limit. [**Reference: CPCN Case No. 9318, Condition A-VIII-2**]<br><br>*See Table IV-25 for additional requirements.*<br><br>C. Control of Sulfur Oxides<br>**COMAR 26.11.06.05** - Sulfur Compounds from Other than Fuel-Burning Equipment.<br>"**B**. Areas I, II, V and VI.<br>(**1**) A person may not cause or permit the discharge into the atmosphere from installations other than fuel-burning equipment of gases containing more than **500 ppm** of sulfur dioxide. Installations constructed before January 17, 1972, are limited to not more than 2,000 ppm sulfur dioxide.<br>(**2**) A person may not cause or permit the discharge into the atmosphere from installations other than fuel-burning equipment of gases containing sulfuric acid, sulfur trioxide, or any combination of them greater than 35 milligrams per cubic meter reported as sulfuric acid. Any installation constructed before January 17, 1972, is limited to not more than 70 milligrams per cubic meter of sulfuric acid, sulfur trioxide, or any combination of them, reported as sulfuric acid."<br><br>D. Control of Nitrogen Oxides<br>The south flare is subject to the NOx BACT and LAER emission limit of **41.0 tpy** on a 12-month rolling basis, at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and |

**Table IV – 23**

design to achieve the BACT and LAER limit. [**Reference: CPCN Case No. 9318, Condition A-VIII-2 and A-VIII-3]**

*See Table IV-25 for additional requirements.*

E. Control of Carbon Monoxide Emissions
The south flare is subject to a **CO BACT** emission limit of **18.4 tpy** on a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the BACT limit. [**Reference: CPCN Case No. 9318, Condition A-VIII-2]**

*See Table IV-25 for additional requirements.*

F. Control of VOC Emissions
The south flare is subject to the **VOC LAER** emissions limit of **4.0 tpy** on a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the LAER limit. [**Reference: CPCN Case No. 9318, Condition A-VIII-3]**

*See Table IV-25 for additional requirements.*

G. Control of BACT for Toxics
Emissions from the north and **south** flares shall comply with the T-BACT requirement through the presence of a pilot flames and the use of good operating practices and maintaining proper combustion efficiency. **[Reference: COMAR 26.11.15.05]**.

H. Control of GHG Emissions
GHG emissions from the flares shall be calculated and included in the project-wide GHG 12-month rolling limit. [**Reference: CPCN Case No. 9318, Condition A-VIII-7]**

I. Operational Limit
The Permittee must be limited to 10 facility restarts (defined by CPCN Case No. 9318 as the startup if project operations, the period during which mixed refrigerant, propane, and/or natural gas in the system are vented to the North and **South** Flares prior to the startup of the sources) during any 12-month rolling period to meet BACT and LAER requirements. These restarts can be warm or cold facility restarts but venting to flares during any restart must be limited to one hour to each flare (North and **South**) per restart event. [**Reference: CPCN Case No. 9318, Condition A-VIII-5]**

The Permittee must limit flaring of gas vented from warm ships during the

| Table IV – 23 | |
|---|---|
| | cool-down process to a maximum of 12 events in any 12-month rolling period. [**Reference: CPCN Case No. 9318, Condition A-VIII-6]** |
| **23.2** | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>See Monitoring Requirements.<br><br>C. Control of Sulfur Oxides<br>See Record Keeping Requirements.<br><br>D. Control of Nitrogen Oxides<br>See Monitoring Requirements.<br><br>E. Control of Carbon Monoxide Emissions<br>See Monitoring Requirements.<br><br>F. Control of VOC Emissions<br>See Monitoring Requirements.<br><br>G. Control of BACT for Toxics<br>See Monitoring Requirements<br><br>H. Control of GHG Emissions<br>See Monitoring Requirements.<br><br>I. Operational Limit<br>See Record Keeping Requirements. |
| **23.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Particulate Matter Emissions<br>**PM, $PM_{10}$ & $PM_{2.5}$**: The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency. and/or hours of operation as appropriate for the gas stream. Monthly emissions totals must be used to calculate 12-month rolling period emissions. |

| Table IV – 23 | |
|---|---|
| | **[Reference: CPCN Case No. 9318, Condition A-VIII-7]**<br><br>C. Control of Sulfur Oxides<br>See Record Keeping Requirements.<br><br>D. Control of Nitrogen Oxides<br>The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency and/or hours of operation as appropriate for the gas stream. Monthly emissions totals must be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]**<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency and/or hours of operation as appropriate for the gas stream. Monthly emissions totals must be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]**<br><br>F. Control of VOC Emissions<br>The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency and/or hours of operation as appropriate for the gas stream. Monthly emissions totals must be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]**<br><br>G. Control of BACT for Toxics<br>The Permittee must continuously monitor the presence of a pilot flame. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]**<br><br>H. Control of GHG Emissions<br>$CO_2$, $CH_4$ and $N_2O$ emissions from the flare pilots must be calculated in accordance with the methodology and emission factors noted in 40 CFR 98, Subpart C. $CO_2$, $CH_4$ and $N_2O$ emissions resulting from flaring combusted and uncombusted gas streams during facility restarts and cool-downs must be calculated in accordance with the methodology and emission factors noted in 40 CFR 98, Subpart W and the chemical composition of each gas stream. On a monthly basis, fuel consumption, coupled with the appropriate emission factors and global warming potentials (1 for $CO_2$, 25 for $CH_4$ and 298 for $N_2O$) must be used to |

| Table IV – 23 | |
|---|---|
| | calculate emissions on a $CO_2e$ basis. The sum of these emission rates must establish GHG emissions from the North and South Flare on a $CO_2e$ basis.<br>The Permittee must continuously monitor for the presence of a pilot flame during operations through the use of a thermocouple or equivalent monitoring method. **Reference: CPCN Case No. 9318, Condition A-VIII-7]**<br><br>I. Operational Limit<br>See Record Keeping Requirements. |
| **23.4** | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Visible Emissions<br>The Permittee shall maintain record of any incidences of visible emissions and the corrective actions taken for at least five years. **[Reference: COMAR 26.11.03.06C].**<br><br>B. Control of Particulate Matter Emissions<br>**PM, $PM_{10}$ & $PM_{2.5}$**: The Permittee shall maintain records of 12-month rolling **PM** (filterable) ,**$PM_{10}$ & $PM_{2.5}$** (filterable & condensable) emissions and monitoring data on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>C. Control of Sulfur Oxides<br>The Permittee shall maintain records of **sulfur** emissions on site for at least 5 years and make these records available to MDE-ARA upon request. **[Reference: COMAR 26.11.03.06C]**<br><br>D. Control of Nitrogen Oxides<br>The Permittee shall maintain records of 12-month rolling **NOx** emissions and monitoring data on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>E. Control of Carbon Monoxide Emissions<br>The Permittee shall maintain records of 12-month rolling **CO** emissions and monitoring data on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>F. Control of VOC Emissions<br>The Permittee shall maintain records of 12-month rolling **VOC** emissions |

| Table IV – 23 | |
|---|---|
| | and monitoring data on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>G. Control of BACT for Toxics<br>The Permittee shall maintain records of monitoring data for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>H. Control of GHG Emissions<br>The Permittee shall maintain records of 12-month rolling project-wide **GHG** emissions on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>I. Operational Limit<br>The Permittee shall maintain records of the number of facility restarts and records of the number of ship cool-down venting events on site for at least five years and submit to the Department upon request. **[Reference: CPCN Case No. 9318, Condition A-VIII-5, A-VIII-6 and COMAR 26.11.01.05]** |
| **23.5** | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>B. Control of Particulate Matter Emissions<br>**PM, $PM_{10}$ & $PM_{2.5}$:** The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**<br><br>C. Control of Sulfur Oxides<br>The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**<br><br>D. Control of Nitrogen Oxides<br>The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-III-8]** |

| Table IV – 23 | |
|---|---|
| | E. Control of Carbon Monoxide Emissions<br>The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**<br><br>F. Control of VOC Emissions<br>The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**<br><br>G. Control of BACT for Toxics<br>See Record Keeping Requirements.<br><br>H. Control of GHG Emissions<br>The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**<br><br>I. Operational Limit<br>See Record Keeping Requirements |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| Table IV – 24 | |
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| **24.0** | **Emissions Unit Number(s): FL7- Component Leaks**<br><br>N/A.<br>**FL7**: Piping and Equipment Component Leaks – Liquefaction (Export) Facility |
| **24.1** | **Applicable Standards/Limits:**<br><br>A. Control of VOC Equipment Leaks<br>**COMAR 26.11.19.16C** - General Requirements.<br>"A person subject to this regulation shall comply with all of the following |

**Table IV – 24**

requirements:
(1) Visually inspect all components on the premises for leaks at least once each calendar month.
(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.
(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.
(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.
(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.
(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence."
**Note:** Cove Point complies with these requirements by following the approved site-specific LDAR Monitoring Plan.

**COMAR 26.11.19.16D**. Exceptions. "Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown."

B. Control of VOC Emissions
VOC emissions from component leaks must comply with LAER requirements through the implementation of a Site-Specific VOC LDAR Monitoring Plan and Program following the procedures outlined in the 28LAER Program specified in TCEQ's Control Efficiencies for TCEQ Leak Detection and Repair Programs as amended. [**Reference: CPCN Case No. 9318, Condition A-IX-3]**

*See Table IV-25 for additional requirements.*

| Table IV – 24 | |
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| | C. Control of BACT for Toxics<br>Emissions from the component leaks shall comply with the T-BACT requirement through the implementation of a VOC LDAR Monitoring Plan and Program. **[Reference: CPCN Case No. 9318, Condition A-IX-4 and COMAR 26.11.15.05]**<br><br>D. Control of GHG Emissions<br>GHG BACT must be the implementation of an LDAR Monitoring Plan and Program following the procedures outlined in the TCEQ 28LAER Texas Commission of Environmental Quality's (TCEQ's) Control Efficiencies for TCEQ Leak Detection and Repair Programs, as amended. **[Reference: CPCN Case No. 9318, Condition A-IX-2]** |
| **24.2** | **Testing Requirements:**<br><br>A. Control of VOC Equipment Leaks<br>See Monitoring Requirements.<br><br>B. Control of VOC Emissions<br>See Monitoring Requirements.<br>C. Control of BACT for Toxics<br>See Record Keeping Requirements<br><br>D. Control of GHG Emissions<br>See Monitoring Requirements. |
| **24.3** | **Monitoring Requirements:**<br><br>A. Control of VOC Equipment Leaks<br>The Permittee shall monitor emissions from component leaks by implementing the LDAR Monitoring Plan and Program. **[Reference: CPCN Case No. 9318, Condition A-IX-2]**<br><br>B. Control of VOC Emissions<br>The Permittee must monitor emissions from component leaks by implementing the LDAR Monitoring Plan and Program. Emissions from component leaks must be calculated based on the results of gas analyzer monitoring/optical gas imaging and through the use if Table 2-4 of EPA's *Protocol for Equipment Leak Emission Estimates* and by the chemical composition of each material and must consider the control efficiencies based on 28LAER LDAR program. **[Reference: CPCN Case No. 9318, Condition A-IX-2 & A-IX-5]** |

| Table IV – 24 | |
|---|---|
| | C. Control of BACT for Toxics<br>See Record Keeping Requirements.<br><br>D. Control of GHG Emissions<br>The Permittee must monitor emissions form component leaks by implementing the LDAR Monitoring Plan and Program. Emissions from component leaks must be calculated based on the results of gas analyzer monitoring/optical gas imaging and through the use if Table 2-4 of EPA's *Protocol for Equipment Leak Emission Estimates* and by the chemical composition of each material and must consider the control efficiencies based on 28LAER LDAR program. **[Reference: CPCN Case No. 9318, Condition A-IX-2 & A-IX-5]** |
| **24.4** | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of VOC Equipment Leaks<br>The Permittee shall maintain records as required by the LDAR Monitoring Plan and Program on site for at least five years and make available to the Department upon request. **[Reference: COMAR 26.11.01.05].**<br><br>B. Control of VOC Emissions<br>The Permittee shall maintain records as required by LDAR Monitoring Plan and Program, generated monthly, quarterly and annual reports on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>C. Control of BACT for Toxics<br>The Permittee shall maintain records as required by the LDAR Monitoring Plan and Program on site for at least five years and make available to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>D. Control of GHG Emissions<br>The Permittee shall maintain records as required by the LDAR Monitoring Plan and Program, generated monthly, quarterly and annual reports on site for at least five years and make available to the Department upon request. **[Reference: COMAR 26.11.01.05]** |
| **24.5** | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>See Record Keeping Requirements. |

| Table IV – 24 | |
|---|---|
| | B. Control of VOC Emissions<br>The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**<br>By April 1st of each year, the Permittee shall notify MDE-ARA of any updates to or deviations from its site-specific LDAR Monitoring Plan occurring during the previous calendar, unless an alternative reporting schedule is approved by MDE-ARA. **[Reference: CPCN Case No. 9318, Conditions A-IX-3]**<br><br>C. Control of BACT for Toxics<br>The Permittee shall submit written certification of the results of an analysis of emissions of TAPs by April 1st of each year for the previous calendar year. **[Reference: COMAR 26.11.15 & .16]**<br><br>D. Control of GHG Emissions<br>The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-III-8]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| Table IV – 25 | |
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| **25.0** | **Emissions Unit Number(s): Project-wide – Liquefaction Project**<br><br>**S001, S002, S003** – (009-5-0012, 5-0013, 5-0014)<br>Three (3) natural gas-fired, simple-cycle General Electric Frame 3 combustion turbine (model MS3142) with a nominal rating of 135.6 MMBTU/hr. – used to generate electricity.<br>**Controls:** Selective catalytic reduction (SCR) unit<br><br>**S009 & S010** – (009-5-0049 & 5-0050)<br>Two (2) natural gas-fired simple-cycle General Electric Frame 5 Turbine |

| Table IV – 25 | |
|---|---|
| | with a nominal rating of 302 MMBtu/hr. equipped with dry-low $NO_x$ combustion (DLN), SCR and oxidation catalyst (OC)<br>**Controls:** DLN, SCR and OC<br><br>**S021** – (009-0021-5-0065)<br>One (1) natural gas-fired, Solar Titan turbine with nominal rating of 137 MMBtu/hr. equipped with DLN combustors, SCR, and oxidation catalyst.<br>**Controls:** DLN, SCR and OC<br><br>**S027 & S028** – (009-0021-5-0071)<br>Two (2) GE Frame 7 combustion turbines (CT) with heat recovery steam generators (HRSGs) each nominally rated at 1,062 MMBtu/hr. with a nominal net shaft power of 87.2 MW rated capacity (116,178 hp nameplate Power Output), equipped with dry low $NO_x$ (DLN1) combustors, selective catalytic reduction system (SCRs), and oxidation catalysts.<br><br>**S029 & S030** – (009-0021-5-0080).<br>Two (2) Cleaver Brooks natural gas fired auxiliary boilers each rated at 424 MMBtu/hr. heat input (rated at 427 MMBtu/hr. while firing station process natural gas), each equipped with low $NO_x$ burners, SCRs, and oxidation catalysts.<br><br>**S034** – (009-0021-9-0092)<br>One (1) Emergency diesel fired generator rated at 1502 hp.<br><br>**N/A** – (009-0021-9-0093)<br>Five (5) diesel-fired fire pump engines each rated at 350 hp.<br><br>**S031** – (009-0021-96-0041)<br>Thermal Oxidizer (56 MMBtu/hr.) equipped with SCR and an oxidization catalyst for Pretreatment process.<br><br>**S032** – N/A<br>North Ground Flare<br><br>**S033** – N/A<br>South Ground Flare<br><br>**FL7** – N/A<br>Piping Components associated with this project, including valves, connectors, flanges, pump seals, and pressure relief valves within the facility boundary |

| Table IV – 25 | |
|---|---|
| | **S024 and S025 –**<br>Water Ethylene Glycol Heaters |
| **25.1** | **Applicable Standards/Limits:**<br><br>A. Control of Particulate Matter Emissions<br>The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the **PM** (filterable only) emission limit of 55.7 tons per year in any consecutive 12-month rolling period. **[Reference: CPCN Case No. 9318, Condition A-III-4]**<br><br>The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the **$PM_{10}$** (filterable and condensable) emission limit of 124.2 tons per year in any consecutive 12-month rolling period. **[Reference: CPCN Case No. 9318, Condition A-III-4]**<br><br>The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the **$PM_{2.5}$** (filterable and condensable) emission limit of 124.2 tons per year in any consecutive 12-month rolling period. **[Reference: CPCN Case No. 9318, Condition A-III-4]**<br><br>B. Control of Nitrogen Oxides<br>The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the $NO_x$ emission limit of 279.3 tons per year in any consecutive 12-month rolling period. **[Reference: CPCN Case No. 9318, Condition A-III-4]**<br><br>C. Control of Carbon Monoxide Emissions<br>The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the CO emission limit of 146.6 tons per year in any consecutive 12-month rolling period. **[Reference: CPCN Case No. 9318, Condition A-III-4]**<br><br>D. Control of GHG Emissions<br>The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the **GHG as $CO_2e$** emission limit of 2,030,988 tons per year in any consecutive 12-month rolling period. **[Reference: CPCN Case No. 9318, Condition A-III-4]**<br><br>E. Control of VOC Emissions<br>The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the **VOC** emission limit of 50.9 tons per year in any |

| Table IV – 25 | |
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| | consecutive 12-month rolling period. [**Reference: CPCN Case No. 9318, Condition A-III-4]**<br><br>F. Control of Formaldehyde Emissions<br>The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the formaldehyde emission limit of 6.2 tons per year in any consecutive 12-month rolling period. [**Reference: CPCN Case No. 9318, Condition A-III-4]**<br><br>G. Operational Limits<br>**For S009, S010, S001, S002, S003 & S021 only: Power Production Limitation**<br>These units must only provide a total maximum of 25 MW on an as needed basis to the Liquefaction process. For the purposes of this definition, the term "as needed" as applied to the Frame 3 (**S001, S002 & S003**) and Solar Titan (**S021**) combustion turbines means there is not a Frame 5 combustion turbine (**S009 & S010**) available due to an abnormal or emergency event to provide to power the project. **[Reference: CPCN Case No. 9318, Condition A-I-3(g)]**<br><br>**For S024 & S025 only**<br>The Permittee must not operate both existing Water Ethylene Glycol Heaters (**S024 & S025**) at the same time, except when necessary to provide contracted, FERC-authorized services and in that event the Permittee must provide prior written notification to MDE. **[Reference: CPCN Case No. 9318, Condition A-XI]** |
| **25.2** | **Testing Requirements:**<br>**Note**: The Permittee may submit to MDE-ARA a request to reduce the frequency of stack testing for any source. **[Reference: CPCN Case No. 9318, Condition A-III-7**]<br><br>A. Control of Particulate Matter Emissions<br>See Record Keeping Requirements.<br><br>B. Control of Nitrogen Oxides<br>See Record Keeping Requirements.<br><br>C. Control of Carbon Monoxide Emissions<br>See Record Keeping Requirements.<br><br>D. Control of GHG Emissions<br>See Record Keeping Requirements. |

| Table IV – 25 | |
|---|---|
| | E. Control of VOC Emissions<br>See Record Keeping Requirements.<br><br>F. Control of Formaldehyde Emissions<br>See Recording Keeping Requirements.<br><br>G. Operational Limits<br>**For S009, S010, S001, S002, S003 & S021 only: Power Production Limitation**<br>See Monitoring Requirements.<br><br>**For S024 & S025 only**<br>See Record Keeping Requirements. |
| **25.3** | **Monitoring Requirements:**<br><br>A. Control of Particulate Matter Emissions<br>See Recording Keeping Requirements.<br><br>B. Control of Nitrogen Oxides<br>See Record Keeping Requirements.<br><br>C. Control of Carbon Monoxide Emissions<br>See Record Keeping Requirements.<br><br>D. Control of GHG Emissions<br>See Record Keeping Requirements.<br><br>E. Control of VOC Emissions<br>See Record Keeping Requirements.<br><br>F. Control of Formaldehyde Emissions<br>See Record Keeping Requirements.<br><br>G. Operational Limits<br>**For S009, S010, S001, S002, S003 & S021 only: Power Production Limitation**<br>The Permittee shall monitor usage of the import turbines for liquefaction and ensure compliance on a 12-month rolling average basis. **[Reference: COMAR 26.11.01.04]**<br><br>**For S024 & S025 only** |

| Table IV – 25 | |
|---|---|
| | See Record Keeping Requirements. |
| 25.4 | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Particulate Matter Emissions<br>The Permittee shall maintain records of 12-month rolling **PM** (filterable), **$PM_{10}$** (filterable and condensable and **$PM_{2.5}$** (filterable and condensable) emissions and shall submit records to the Department upon request. **[Reference: COMAR 26.11.01.05 & COMAR 26.11.03.06C]**<br><br>B. Control of Nitrogen Oxides<br>The Permittee shall maintain records of 12-month rolling $NO_X$ emissions on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>C. Control of Carbon Monoxide Emissions<br>The Permittee shall maintain records of 12-month rolling CO emissions on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05 & COMAR 26.11.03.06C]**<br><br>D. Control of GHG Emissions<br>The Permittee shall maintain records of 12-month rolling $CO_2e$ emissions on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05 & COMAR 26.11.03.06C]**<br><br>E. Control of VOC Emissions<br>The Permittee shall maintain records of 12-month rolling VOC emissions on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05 & COMAR 26.11.03.06C]**<br><br>F. Control of Formaldehyde Emissions<br>The Permittee shall maintain records of 12-month rolling formaldehyde emissions on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05 & COMAR 26.11.03.06C]**<br><br>G. Operational Limits<br>**For S009, S010, S001, S002, S003 & S021 only: Power Production Limitation**<br>The Permittee shall maintain records of power produced by these units and used by the liquefaction process on site for at least five years and |

| Table IV – 25 | |
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| | submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**<br><br>**For S024 & S025 only**<br>The Permittee shall maintain records of written notification on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]** |
| **25.5** | **Reporting Requirements:**<br><br>A. Control of Particulate Matter Emissions<br>The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**<br><br>B. Control of Nitrogen Oxides<br>The Permittee shall submit quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Condition A-III-8]**<br><br>C. Control of Carbon Monoxide Emissions<br>The Permittee shall submit quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Condition A-III-8]**<br><br>D. Control of GHG Emissions<br>The Permittee shall submit quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Condition A-III-8]**<br><br>E. Control of VOC Emissions<br>The Permittee shall submit quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in Table IV-25, Condition H. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**<br><br>F. Control of Formaldehyde Emissions<br>See Record Keeping Requirements. |

| Table IV – 25 | |
|---|---|
| | G. Operational Limits<br>**For S009, S010, S001, S002, S003 & S021 only: Power Production Limitation**<br>See Record Keeping Requirements.<br><br>**For S024 & S025 only**<br>The Permittee shall submit prior written notification to MDE in the event of needing to run both heaters at the same time in order to provide contracted FERC-authorized services. **[Reference: CPCN Case No. 9318, Conditions A-XI]**<br><br>The Permittee shall submit a quarterly report to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter that includes the following information:<br>a) Lists instances of deviations from permit requirements.<br>b) Summarizes separately the date, time, and duration of each startup, shutdown, or malfunction that occurred for each Frame 7 combustion turbine or auxiliary boiler identified as part of the DECP Project during the prior quarterly period. The report shall include total monthly and consecutive rolling 12-month hours of startup, shutdown, and malfunction for each source. The report shall also include the total $NO_x$, VOC, CO, PM, $PM_{10}$, $PM_{2.5}$ and GHG emissions for each startup and shutdown event.<br>c) Summarizes the downtime or malfunction of all CEMS required for DECP Project emission sources. The report shall include the date and time of each period during which the CEMS was inoperative, and the nature of the monitoring system repairs, or adjustments completed.<br>d) Summarizes the monthly and consecutive rolling 12-month total emissions (in tons per month and tons per year) of PM, $PM_{10}$, $PM_{2.5}$, $NO_x$, CO, VOCs, and GHGs (as $CO_2e$) separately for each emission unit and total emissions of those pollutants for all DECP Project sources.<br>**[Reference: CPCN Case No. 9318, Conditions A-III-8]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

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| Table IV – 26 | |
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| **26.0** | **Emissions Unit Number(s): VOC Vessels (Storage Tanks)**<br><br>N/A.<br>VOC Vessels (Storage Tanks).<br>Storage tanks (operating on a closed loop system):<br>Four (4) 102,448-gallon operating capacity propane make-up tanks; |

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| | Two (2) 34,040-gallon operating capacity ethane make-up tanks; and<br>Two (2) 32,429-gallon operating capacity hydrocarbon tanks<br>One (1) propane transfer drum with an operating capacity of 5,538 gallons.<br>Two (2) 0.05 MMBtu/hr. propane vaporizers utilized for flare pilot backup fuel.<br>One (1) nominal 1850-gallon propane North Flare pilot backup tank.<br>One (1) nominal 1000-gallon propane South Flare pilot backup tank. |
| **26.1** | **Applicable Standards/Limits:**<br><br>A. Control of Gasoline and VOC Storage and Handling<br>**COMAR 26.11.13.03** - Large Storage Tanks.<br>**A**. Closed Top Tanks.<br>(**1**) Equipment Requirements. A person may not place or store gasoline or VOC having a TVP between 1.5 psia (10.3 kilonewton/square meter) and 11 psia (75.6 kilonewton/square meter), inclusive, in any closed top tank with a capacity of 40,000 gallons (151,400 liters) or greater unless the:<br>(**b**) Tank is equipped with one of the following properly installed, operating, and well-maintained emission control systems:<br>(**iii**) A vapor control system capable of collecting the vapors from the tank and disposing of these vapors to prevent their emission to the atmosphere.<br>**COMAR 26.11.13.04D** - General Standards. "A person may not cause or permit gasoline or VOC having a TVP of 1.5 psia (10.3 kilonewtons/square meter) or greater to be loaded into any tank truck, railroad tank car, or other contrivance unless the:<br>(1) Loading connections on the vapor lines are equipped with fittings that have no leaks and that automatically and immediately close upon disconnection to prevent release of gasoline or VOC from these fittings; and<br>(2) Equipment is maintained and operated in a manner to prevent avoidable liquid leaks during loading or unloading operations."<br>**[Reference: CPCN Case No. 9318, Condition A-IX-1]**<br><br>*Condition B applies to the Two (2) 32,429-gallon operating capacity hydrocarbon tanks*<br>B. Control of VOC Emissions<br>**NSPS**: The volatile organic compound storage vessels are each subject to NSPS 40 CFR §60 Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced After July 23, 1984, as applicable. DECP shall comply with the requirements of Subpart Kb through the use of a closed-loop system such that there are no emissions to the atmosphere from the four Propane |

| Table IV – 26 | |
|---|---|
| | Make-Up Tanks, and two Condensate Storage Tanks. Other than the use of isopentane in the hydrocarbon condensate storage tanks, all other volatile organic liquids stored on site are exempt from the requirements of Subpart Kb. **[Reference: CPCN Case No. 9318, Condition A-X-2]** |
| **26.2** | **Testing Requirements:**<br><br>A. Control of Gasoline and VOC Storage and Handling<br>See Record Keeping Requirements.<br><br>*Condition B applies to the Two (2) 32,429-gallon operating capacity hydrocarbon tanks*<br>B. Control of VOC Emissions<br>NSPS: The Permittee shall follow testing procedures in accordance with 40 CFR §60.113b. **[Reference: 40 CFR §60.113b]** |
| **26.3** | **Monitoring Requirements:**<br><br>A. Control of Gasoline and VOC Storage and Handling<br>See Record Keeping Requirements.<br><br>*Condition B applies to the Two (2) 32,429-gallon operating capacity hydrocarbon tanks*<br>B. Control of VOC Emissions<br>NSPS: The Permittee shall follow monitoring procedures in accordance with 40 CFR §60.113b. **[Reference: 40 CFR §60.113b]** |
| **26.4** | **Record Keeping Requirements:**<br>**Note**: All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)].**<br><br>A. Control of Gasoline and VOC Storage and Handling<br>The Permittee shall maintain records of tank content on site for at least five years and make available to the Department upon request. **[Reference: COMAR 26.11.01.05].**<br><br>*Condition B applies to the Two (2) 32,429-gallon operating capacity hydrocarbon tanks*<br>B. Control of VOC Emissions<br>The Permittee shall maintain records of all periods of operation during which the flare pilot flame is absents. **[Reference: 40 CFR §60.115b(d)(2)]** |
| **26.5** | **Reporting Requirements:** |

| Table IV – 26 | |
|---|---|
| | A. Control of Gasoline and VOC Storage and Handling<br>See Record Keeping Requirements.<br><br>*Condition B applies to the Two (2) 32,429-gallon operating capacity hydrocarbon tanks*<br>B. Control of VOC Emissions<br>The Permittee shall submit a report containing the measurements required by §60.18(f)(1),(2), (3), (4), (5) and (6) to the Administrator as required by 60.8 of the General Provisions. This report will be submitted within 6 months of the initial start-up date. The Permittee shall submit semiannual reports of all periods recorded under §60.115b(d)(2) in which the pilot flame was absent to the Administrator. **[Reference: 40 CFR §60.115b(d)(1) & 40 CFR §60.115b(d)(3)]** |

**A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.**

## SECTION V INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 4 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

**[For Areas I, II, V, and VI]**

The *affected fuel burning units* are subject to the following requirements:

COMAR 26.11.09.05A(1), which establishes that the Permittee 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.

Exceptions: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, start-up, 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 Distillate Fuel Oil]**

COMAR 26.11.09.07A(1)(c) which establishes that the Permittee may not burn, sell, or make available for sale any distillate fuel with a sulfur content by weight in excess of 0.3 percent.

(2) No. 14 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

The *affected units* are subject to the following requirements:

(A) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(C) Exceptions:

(i) COMAR 26.11.09.05E(2) 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.

(ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes
(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(3) No. 1 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

The *affected unit* is subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds (VOC) from cold degreasing operations by meeting the following requirements:

(a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 ° C;

(b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing

material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;

(c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

The Permittee shall maintain on site for at least five (5) years, and shall make available to the Department upon request, the following records of operating data:

(a) Monthly records of the total VOC degreasing materials used; and

(b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.

(4) Containers, reservoirs, or tanks used exclusively for:

(a) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;

(b) No. 8 Storage of lubricating oils;

(c) No. 18 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(d) No. 1 Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;

(5) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

(6) ✓ Laboratory fume hoods and vents;

*For the following, attach additional pages as necessary:*

(7) any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):

No. 1 220-gallon storage tank NI-712 Odorant Masking Agent

No. 10 Trace-erase electric catalyst for gas chromatograph analyzers

No. 1 1,850-gallon propane North Flare Pilot backup storage tank

No. 1 1,000-gallon propane South Flare Pilot backup storage tank.

(8) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. 1 12,000-gallon aqueous ammonia (<20% Conc) storage tank 214F

No. 1 18,000-gallon aqueous ammonia (<20% Conc) storage tank 127F

No. 1 40,000-gallon aqueous ammonia (<20% Conc) storage tank 5V591

No. 1 800-gallon aqueous ammonia (<20% Conc) storage tank 5V405

## SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

The Permittee is subject to the following State-only enforceable requirements:

1. Applicable Regulations:

**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 constructed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

**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."

**COMAR 26.11.15.05** –Control Technology Requirements
"A person who complies with the ambient impact requirement in Regulation .06 of this chapter may not be affected by the amount of the installation's stack height that exceeds good engineering practice (GEP), or by any other dispersion technique.
(3) Unless an existing installation is controlled using T-BACT, the degree of emission limitation required in order to demonstrate compliance with Regulation .06 of this chapter may not be affected by the amount of the installation's stack height that exceeds good engineering practice (GEP), or by any other dispersion technique."

**COMAR 26.11.15.06** – Ambient Impact Requirement
(A) "Except as provided in §B(3) of this regulation, a person may not cause or permit the discharge of a toxic air pollutant listed in COMAR 26.11.16.07 from an existing installation or source if total allowable emissions of that TAP for the premises will unreasonably endanger human health.
(B) A person shall demonstrate compliance with §B(1) of this regulation using the procedures established in Regulation .07 of this chapter and COMAR 26.11.16.
(C) A person who owns or operates an existing premises shall meet the requirements of §B(1) and (2) of this regulation for each TAP listed in COMAR 26.11.16.07 by the applicable compliance dates listed in COMAR 26.11.16.07, or not later than 2 years after becoming subject to this chapter, whichever is later."

**COMAR 26.11.40** – $NO_x$ Ozone Season Emission Caps for Non-trading Large $NO_x$ Units.

**COMAR 26.11.40.02** – Applicability
"**A**. The owner or operator of a non-trading large $NO_x$ unit, that is not a unit subject to the federal Cross State Air Pollution Rule $NO_x$ Ozone Season Group 2 Trading Program established under 40 CFR Part 97, Subpart EEEEE, shall comply with the ozone season $NO_x$ emission limitation, monitoring, record keeping, and reporting requirements for ozone season emissions of $NO_x$ set forth in this chapter.
**B**. The requirements of this chapter apply to a person who owns or operates a non-trading large $NO_x$ unit located at the affected sources in §C of this regulation.
**C**. Affected Sources and Units.
(1) American Sugar Unit No. C6;
(2) **Cove Point LNG Units No. Frame 5-1 (Turbine S009), Frame 5-2 (Turbine S010), Frame 7-A, Frame 7-B, Aux A and Aux B**;
(3) Luke Paper Mill Units No. 24, 25 and 26;
(4) National Institutes of Health Unit 5-1156; and
(5) A person who owns or operates a new unit subject to this chapter."

**COMAR 26.11.40.03** - $NO_x$ Ozone Season Emission Caps.
"**A**. The total combined $NO_x$ ozone season emissions for all non-trading large $NO_x$ units subject to this chapter may not exceed 1013 tons in accordance with the 40 CFR Part 97, Subpart E, Appendix C.
**B**. $NO_x$ Ozone Season Emission Caps.
(1) The total combined ozone season $NO_x$ emissions from all the affected units at an affected source as identified in Regulation .02C of this chapter may not exceed the $NO_x$ ozone season emission caps in §B(2) of this regulation.
(2) Table — $NO_x$ Ozone Season Emission Caps.

| **Affected Sources** | **$NO_x$ Ozone Season Emission Caps Beginning May 1, 2018** |
|---|---|
| American Sugar | 24 tons |
| **Cove Point LNG** | **214 tons** |
| Luke Paper Mill | 656 tons |
| National Institutes of Health | 23 tons |
| New Unit Set Aside | 96 tons |
| Total | 1013 tons |

**C**. $NO_x$ ozone season emission caps for new units shall be determined by the Department from available tonnage allocated to New Unit Set Aside under §B(2) of this regulation."

**COMAR 26.11.40.04** - Monitoring and Reporting Requirements.
"**A**. For non-trading large $NO_x$ units subject to this chapter, the owner or operator shall:

(1) Continuously monitor NOx emissions with a CEM system in accordance with 40 CFR Part 75, Subpart H and 40 CFR §51.121(i)(4); and
(2) Maintain records and submit reports regarding NOx emissions in accordance with 40 CFR Part 75.
**B**. The owner or operator of a non-trading large NOx unit subject to this regulation shall include emissions data obtained from a CEM system pursuant to §A of this regulation in the CEM quarterly reports submitted to the Department pursuant to COMAR 26.11.01.11E(2)."

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**COMAR 26.11.41** – Control of Methane Emissions from the Natural Gas Industry Authority.
**COMAR 26.11.41.02 -** Applicability**.**
The provisions of this chapter apply to an affected facility as that term is defined in Regulation .01B of this chapter.
**COMAR 26.11.41.03** - Leak Detection and Repair Requirements.
**A**. *Not Applicable.*
**B**. *Not Applicable.*
**C**. Cove Point Liquefied Natural Gas facility shall comply with:
(1) The leak detection and repair requirements as specified by the Climate Action Plan, which is defined, prepared, and approved under COMAR 26.09.02.06.B—E; and
(2) The leak detection and repair plan defined and approved under the Certificate of Public Convenience and Necessity, issued by the Maryland Public Service Commission on May 30, 2014, Order No. 86372, Case No. 9318, as amended on February 6, 2018, with Order No. 88565, and Errata on February 23, 2018, Order No. 88565, as amended.
**D**. *Not Applicable.*
**E**. If an owner requests approval, the Department may approve a new technology or alternative practice to identify leaking fugitive emissions components as an equivalent substitution for the requirements in §A or B of this regulation.

**COMAR 26.11.41.04** - Natural Gas-Powered Pneumatic Devices Methane Emission Control Requirements.
**A**. Beginning January 1, 2021, each continuous and intermittent bleed natural gas-powered pneumatic device shall comply with the leak detection and repair requirements specified in Regulation .03 of this chapter, as applicable, when the device is idle and not controlling.
**Note: Cove Point does not have any continuous bleed natural gas-powered pneumatic devices on site.**

**COMAR 26.11.41.05** - Reciprocating Natural Gas Compressor Methane Emission Control Requirements.

**A**. All reciprocating natural gas compressor components at an affected facility shall comply with the leak detection and repair requirements in Regulation .03 of this chapter where applicable.
**B**. Control Measures for Reciprocating Natural Gas Compressor.
(1) By January 1, 2021, compressor vent stacks used to vent rod packing/seal emissions shall be controlled with the use of a vapor collection system as specified in Regulation .06 of this chapter; or
(2) By April 1, the reciprocating natural gas compressor rod packing/seal emission flow rate through the rod packing/seal vent stack shall be measured annually through direct measurement (high volume sampling, bagging, calibrated flow measuring instrument, etc.) while the compressor is operating at normal operating temperature.
(a) Direct measurements shall use one of the following methods:
(i) Vent stacks shall be equipped with a meter or instrumentation to measure the rod packing or seal emissions flow rate; or
(ii) Vent stacks shall be equipped with a clearly identified access port to measure individual or combined rod packing or seal emission flow rates.
(b) If the measurement is not obtained because the compressor is not operating for the scheduled test date, testing shall be conducted within 7 calendar days of resumed operation.
(3) A reciprocating natural gas compressor with a rod packing/seal with a measured emission flow rate that exceeds 1 standard cubic foot per minute, or a combined rod packing or seal emission flow rate that exceeds the number of compression cylinders multiplied by 1 standard cubic foot per minute shall:
(a) Be successfully repaired or replaced within 30 calendar days from the date of the exceedance; or
(b) Conduct natural gas compressor rod packing/seal emission flow rate measurements every 6 months or when the compressor resumes operation, whichever is later.
(4) A reciprocating natural gas compressor with a measured emission flow rate that exceeds 2 standard cubic feet per minute, or a combined rod packing or seal emission flow rate that exceeds the number of compression cylinders multiplied by 2 standard cubic feet per minute, shall be successfully repaired or replaced within 30 calendar days from the date of the exceedance.
**C**. Delay of Repair for Reciprocating Natural Gas Compressor.
(1) A delay of repair may occur provided the owner or operator provides documentation, upon request from the Department, that the delivery of parts or equipment required to make necessary repairs will take more than 30 days from the last emission flow rate measurement and that the parts have been ordered.
(2) A delay of repair to obtain parts or equipment may not exceed 60 days from the date of the last emission flow rate measurement unless the owner or operator notifies the Department, in writing, of the extended delay and provides an estimated time by which the repairs will be completed.

(3) A reciprocating natural gas compressor with a rod packing/seal emission flow rate measured above the standard specified in §B(4) of this regulation, and which has leaking parts deemed unsafe to monitor or requiring a facility shutdown, shall be successfully repaired by the end of the next planned process shutdown or within 12 months from the date of the flow rate measurement, whichever is sooner.

**COMAR 26.11.41.06** - Vapor Collection System and Vapor Control Devices.
**Note: Cove Point does not utilize any Vapor Collection systems or Vapor Control Devices to show compliance with this regulation.**

**COMAR 26.11.41.07** - Record-Keeping and Reporting Requirements.
**A.** Owners or operators of affected facilities shall maintain, submit as described in this section, and make available upon request by the Department a copy of records necessary to verify compliance with the provisions of this chapter, as follows:
(1) For each leak monitoring survey and audio, visual, and olfactory inspection conducted according to Regulation .03 of this chapter, owners and operators shall:
(a) Submit a report to the Department within **60 days of each leak monitoring survey** with the following information: ***(For Cove Point it's impractical, therefore: 30 days of the end of each reporting quarter according to the approved LDAR Plan)***
(i) Date of the survey;
(ii) A list of each fugitive emission and repair;
(iii) Any deviations from the initial methane monitoring plan or a statement that there were no deviations from the initial methane monitoring plan;
(iv) Number and type of components for which fugitive emissions were detected;
(v) Number and type of difficult-to-monitor fugitive emission components monitored;
(vi) Instrument reading of each fugitive emissions component that requires repair when EPA Method 21 (40 CFR 60, Appendix A-7) is used for monitoring;
(vii) Number and type of fugitive emissions components that were not repaired;
(viii) Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair;
(ix) The date of successful repair of the fugitive emissions component; and
(x) Instrumentation used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding;
(b) Maintain, for a minimum of **5 years**, record of each leak monitoring survey along with the following information:
(i) Reports submitted according to §A(1)(a) of this regulation;
(ii) Beginning and end time of the survey;
(iii) Name of operator(s) performing survey;

(iv) Monitoring instrument used, including the manufacturer, model number, serial number, and calibration documentation;
(v) 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;
(vi) Fugitive emissions component identification when EPA Method 21 (40 CFR 60, Appendix A-7) is used to perform the monitoring survey;
(vii) Ambient temperature, sky conditions, and maximum wind speed at the time of the survey;
(viii) Any deviations from the initial methane monitoring plan or a statement that there were no deviations from the initial methane monitoring plan;
(ix) Proof that parts or equipment required to make necessary repairs, as required by this chapter, have been ordered;
(x) 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 leak monitoring survey at the time the fugitive emissions were initially found; and
(xi) Repair methods applied in each attempt to repair the fugitive emissions components;
(c) Post a quarterly report summary to a publicly available website of each leak monitoring survey, including the information required in §A(1)(a) of this regulation, **60 days after the leak monitoring survey**; and ***(For Cove Point it's impractical, therefore: 30 days of the end of each reporting quarter according to the approved LDAR Plan***)
(d) Maintain records of audio, visual, and olfactory inspections for at least 5 years from the date of inspection.
(2) *Not Applicable.* **Note: Cove Point does not have any continuous bleed natural gas-powered pneumatic devices on site.**
(3) For each reciprocating natural gas compressor, owners and operators shall:
(a) Maintain a record of each rod packing leak concentration measurement found above the minimum leak threshold and report annually beginning **April 1, 2021**, for at least **5 years** from the date of each leak concentration measurement;
(b) Maintain a record of each rod packing or seal emission flow rate measurement and report annually beginning April 1, 2021, for at least 5 years from the date of each emissions flow rate measurement;
(c) Maintain a record that documents the date(s) and hours of operation a compressor is operated in order to demonstrate compliance with the rod packing leak concentration or emission flow rate measurement in the event that the compressor is not operating during a scheduled inspection for at least 1 calendar year;
(d) Maintain records that provide proof that parts or equipment required to make necessary repairs required by this chapter have been ordered;
(e) Report annually the cumulative number of hours of operation or the number of months since initial startup or the previous reciprocating compressor rod packing replacement, whichever is later, beginning **April 1, 2021**;

(f) If applicable, submit a statement that emissions from the rod packing are being routed to applicable vapor control system under Regulation .06 of this chapter;
(g) Report records of deviations from this chapter that occurred during the reporting period annually, beginning **April 1, 2021**; and
(h) Maintain a record of purchase orders, work orders, or any in-house or third-party reports produced or provided to the affected facility necessary to demonstrate compliance with the delay of repair provisions of this chapter for at least 5 years.
**B.** Blowdown Events and Reports.
(1) Within 90 days of the effective date of this chapter, affected facilities shall submit a blowdown notification plan to the Department for approval of any blowdown event in excess of 1,000,000 standard cubic feet. (*Completed-Blowdown Plan July 2021 Rev1*)
(2) The blowdown notification plan according to §B(1) of this regulation shall include:
(a) The notification format (for example, website, email, robocall, text message, social media announcement, etc.) to local authorities, the Department, and interested parties for blowdown emissions in excess of 1,000,000 standard cubic feet;
(b) A public outreach plan to inform interested parties of the availability to be notified of blowdown events in excess of 1,000,000 standard cubic feet;
(c) The affected facility's responsible personnel for blowdown notifications; and
(d) A sitemap of the facility with clearly marked designated area(s) for blowdown emissions in excess of 1,000,000 standard cubic feet.
(3) For any blowdown event in excess of 1,000,000 standard cubic feet, affected facilities shall make information publicly available in accordance with the facility's approved blowdown notification plan, including notification to the Department, at least 7 days prior.
(4) For any blowdown event in excess of 1,000,000 standard cubic feet that is scheduled less than 7 days prior to the blowdown event, affected facilities shall, as soon as practicable:
(a) Make information publicly available in accordance with the facility's approved blowdown notification plan; and
(b) Provide an explanation to the Department of the reason for the blowdown event.
(5) For any emergency or unplanned blowdown event in excess of 1,000,000 standard cubic feet, affected facilities shall make information publicly available in accordance with the facility's approved blowdown notification plan and notify the Department within 1 hour of the emergency or unplanned blowdown event.
(6) When safety concerns preclude a facility from providing prior notification of an emergency or unplanned blowdown under §B(5) of this regulation, the facility shall send notice to the Department within 24 hours of the blowdown event indicating the reason(s) why prior notice was not possible.

(7) Affected facilities shall report the following information to the Department of blowdown emissions in excess of 50 cubic feet within the facility's fence line annually by April 1 of each year:
(a) Date and type (that is, planned or emergency) of each blowdown event;
(b) Methane emissions in metric tons released from each blowdown event; and
(c) Annual methane emissions in metric tons from all blowdown events.
(8) Methane emissions shall be calculated according to procedures in 40 CFR Part 98, Subpart W, §98.233.
**C**. Greenhouse Gas Emissions Reporting.
(1) Owners and operators of affected facilities shall report methane, carbon dioxide, and nitrous oxide mass emissions to the Department annually by April 1 of each year.
(2) Owners and operators of affected facilities shall follow the procedures for emission calculation, monitoring, quality assurance, missing data, record keeping, and reporting that are specified in 40 CFR Part 98, Subpart C, and 40 CFR Part 98, Subpart W.
(3) When reporting to the Department, owners and operators of affected facilities shall expand the fugitive emissions reporting requirements of 40 CFR Part 98, Subpart W, to include a Microsoft Excel format list providing calculations summarized by category under 40 CFR §98.232(e)—(h) as applicable.
(4) The reporting threshold in 40 CFR §§98.2, 98.31 and 98.231 of 25,000 metric tons of $CO_2$ equivalent does not exempt an affected facility from following the requirements of this section.
**D**. All required reports shall be submitted to the Industrial Compliance Division in written or electronic format.

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2. Record Keeping and Reporting:

   The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

   (a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

   (b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

# Maryland Department of the Environment
# Air and Radiation Administration

# $CO_2$ BUDGET TRADING PROGRAM PERMIT

| | |
|---|---|
| **Plant Name**: Cove Point LNG Terminal | |
| **Affected Trading Units**: GT501A, GT501B, B921A & B921B | |
| **Owner**: Cove Point LNG, LP | **ORIS Code** 59073 |
| **Effective Date** From: September 15, 2022, To: July 31, 2027_ | |

## Contents:



1. Statement of Basis

Statutory and Regulatory Authorities: In accordance with Environmental Article §2-401, Annotated Code of Maryland, the Maryland Department of the Environment, Air and Radiation Administration issues this permit pursuant to COMAR 26.09.01 thru COMAR 26.09.04.

## Initial Permit Approval

Christopher Hoagland, Director
Air and Radiation Administration

9/15/22
Date of Issue

2. Affected Units

| Unit ID # | ARA ID # | Unit Description |
|---|---|---|
| GT501A | 009-0021-5-0071 | GE Frame 7 natural gas-fired combustion turbine |
| GT501B | | GE Frame 7 natural gas-fired combustion turbine |
| B921A | 009-0021-5-0080 | Natural gas-fired boiler |
| B921B | | Natural gas-fired boiler |

3. Standard Requirements:

## (A) Selection and Responsibilities of $CO_2$ Budget Source Compliance Account Authorized Account Representatives.

(1) Each $CO_2$ budget source shall have a $CO_2$ authorized account representative and an alternate $CO_2$ authorized account representative. **(COMAR 26.09.01.04B)**

(2) Upon receipt of a complete account certificate of representation:

(a) The $CO_2$ authorized account representative and alternate $CO_2$ authorized account representative shall represent and, by representations, actions, inactions, or submissions, legally bind each owner or operator of the $CO_2$ budget source represented and each $CO_2$ budget unit at the source in all matters pertaining to this subtitle, notwithstanding any agreement between the $CO_2$ authorized account representative, alternate $CO_2$ authorized account representative, and the owners or operators; and
**(COMAR 26.09.01.04E(1))**

(b) The owners or operators shall be bound by any decision or order issued to the $CO_2$ authorized account representative or alternate $CO_2$ authorized account representative by the Department or a court regarding the $CO_2$ budget source or unit.
**(COMAR 26.09.01.04E(2))**

(3) A $CO_2$ budget permit may not be issued, or a compliance account established for a $CO_2$ budget source until the Department has received a complete account certificate of representation for a $CO_2$ authorized account representative and alternate $CO_2$ authorized account representative of the source and the $CO_2$ budget units at the source. **(COMAR 26.09.01.04F)**

(4) Each submission shall be signed and certified by the $CO_2$ authorized account representative or alternate $CO_2$ authorized account representative on behalf of each $CO_2$ budget source and shall

include the following statement by the $CO_2$ authorized account representative or alternate $CO_2$ authorized account representative: "I am authorized to make the submission on behalf of the owners or operators of the $CO_2$ budget sources or $CO_2$ budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in the document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment." **(COMAR 26.09.01.04G)**

## (B) Limited Industrial Exemption Requirements

(1) Cove Point LNG Terminal shall limit its $CO_2$ budget source's annual electrical output to the electric grid in the PJM region to not more than 10 percent of its annual gross generation. **(COMAR 26.09.02.06B(1))**

(2) The Limited Industrial Exemption becomes effective January 1 of the calendar year that the $CO_2$ budget source commenced operation, for a $CO_2$ budget source that commenced operation after January 1, 2009. **(COMAR 26.09.02.06C(2))**

(3) Cove Point LNG Terminal shall comply with the terms of the approved climate action plan. **(COMAR 26.09.02.06D(2))**

(4) Beginning April 1 of the year after the Department approved the $CO_2$ budget source's exemption, Cove Point LNG Terminal shall report annually to the Department the following:

(a) Its annual gross electricity generation; and

(b) The amount of electricity that it supplied to the grid in the PJM region during the calendar year.
**(COMAR 26.09.02.06D(3))**

(5) Cove Point LNG Terminal shall report reductions achieved by the approved climate action plan. **(COMAR 26.09.02.06D(4))**

(6) Cove Point LNG Terminal shall retain all reports required by this regulation at the $CO_2$ budget source for a period of 10 years from the date the reports are created. **(COMAR 26.09.02.06D(5))**

(7) The Limited Industrial Exemption pursuant §B of this regulation shall no longer apply if the CO2 budget source fails to comply with any of the requirements of §D of this regulation. **(COMAR 26.09.02.06E)**

## (C) Applicability and Administration

(1) The requirements of this chapter apply to the owner or operator of a $CO_2$ budget unit. When this chapter establishes a requirement such as the submittal of a permit application, a report, a request for allowances or transfer of allowances, or general information, these actions shall be achieved through the $CO_2$ authorized account representative on behalf of the owner or operator of the affected $CO_2$ budget source or unit. **(COMAR 26.09.02.02A)**

(2) The requirements of this subtitle are effective on January 1, 2009, or, for new $CO_2$ budget units, on the day on which the unit commences operation. **(COMAR 26.09.02.02C)**.

(3) The provisions of this subtitle do not exempt or otherwise relieve the owners or operators of a $CO_2$ budget source from achieving compliance with any other provision of applicable State and federal laws and regulations. **(COMAR 26.09.02.02D)**.

(4) Unless otherwise stated under this subtitle, any time period scheduled to begin:

(a) On the occurrence of an act or event, begins on the day the act or event occurs; and

(b) Before the occurrence of an act or event, is computed so that the period ends the day before the act or event occurs. **(COMAR 26.09.02.02E)**

(5) Unless otherwise stated, if the final day of any time period for performing an act required by this subtitle falls on a weekend or on a State or federal holiday, the time period is extended until or to the next business day. **(COMAR 26.09.02.02F)**

## (D) Permit Requirements

(1) The account representative or designate alternate account representative) of each affected unit at a source, (every fossil fuel fired unit with a nameplate capacity of 25 MW or greater) for that source shall comply with the following:

(a) The $CO_2$ authorized account representative for the source shall submit an initial $CO_2$ budget permit application by October 1, 2008, or 12 months before the date on which the $CO_2$ budget source, or a new unit at the source, commences operation. **(COMAR 26.09.02.04A(2))**; *(Completed August 16, 2016)*

(b) The $CO_2$ budget permit application shall include the following in a format prescribed by the Department: 1) the identification of the $CO_2$ budget source; 2) plant name and the ORIS (Office of Regulatory Information Systems) or facility code assigned to the source by the Energy Information Administration of the U. S. Department of Energy, if applicable; 3) each $CO_2$ budget unit at the source; and 4) other information required by the Department. **(COMAR 26.09.02.04A(3))**

(2) Each $CO_2$ budget source shall apply for and have in effect a $CO_2$ budget permit that contains all applicable requirements. **(COMAR 26.09.02.04A(1))**.

(3) The $CO_2$ budget permit issued by the Department shall be separate but attached to the budget source's Part 70 permit. **(COMAR 26.09.02.04B)**

(4) A $CO_2$ budget permit expires 5 years from the date of issuance by the Department, unless an earlier expiration date is specified in the permit. **(COMAR 26.09.02.04D)**

(5) A $CO_2$ authorized account representative for the source shall submit a complete application for the renewal of an existing $CO_2$ budget permit on forms provided by the Department not later than 90 days before the expiration of the current $CO_2$ budget permit and in accordance with this regulation. **(COMAR 26.09.02.04E)**

## (E) Monitoring, Initial Certification and Recertification Requirements

(1) For each control period in which a $CO_2$ budget source is subject to the $CO_2$ budget emissions limitation, the $CO_2$ authorized account representative of the source shall submit a compliance certification report by the March 1 following the relevant control period. **(COMAR 26.09.02.05A(1))**

(2) The $CO_2$ authorized account representative shall include in the compliance certification report the following:

(a) Identification of the source and each $CO_2$ budget unit at the source;

(b) At the $CO_2$ authorized account representative's option, the serial numbers of the $CO_2$ allowances that are to be deducted from the source's compliance account for the control period, including the serial numbers of any $CO_2$ offset allowances that are to be deducted subject to applicable limitations; and

(c) The compliance certification required by §A(3) of this regulation.
**(COMAR 26.09.02.05A(2))**

(3) Compliance Certification. In the compliance certification report, the $CO_2$ authorized account representative shall certify whether the source and each $CO_2$ budget unit at the source for which the compliance certification is submitted was operated during the control period in compliance with the requirements of this subtitle, including:

(a) Whether each $CO_2$ budget unit at the source was operated in compliance with the $CO_2$ budget emissions limitation;

(b) Whether the monitoring plan applicable to each unit at the source:
(i) Has been maintained to reflect the actual operation and monitoring of the unit; and
(ii) Contains all information necessary to track $CO_2$ emissions from the unit;

(c) Whether all $CO_2$ emissions from each unit at the source were monitored or accounted for through the missing data procedures and reported in the quarterly monitoring reports, including:
(i) Whether of all conditional data reported in the quarterly reports; or

(ii) If conditional data were reported, whether the status of all conditional data has been resolved and all necessary quarterly report resubmissions have been made;

(d) Whether the basis for certification or for using an excepted monitoring method or approved alternative monitoring method has changed; and

(e) If a change is required to be reported, include:
(i) The nature and reasons for the change;
(ii) When the change occurred; and
(iii) How the unit's compliance status was determined after the change, including the method used to determine emissions when a change mandated the need for monitor recertification.
**(COMAR 26.09.02.05A(3)(a)-(e))**

(4) The Department, at its discretion, may review and conduct independent audits of any compliance certification or other submission required by this permit. **(COMAR 26.09.02.05B(1))**

(5) The Department may deduct $CO_2$ allowances from, or transfer $CO_2$ allowances to, a compliance account to correct errors in the account or to accurately reflect $CO_2$ emissions, based on the information in the compliance certification or other submissions. **(COMAR 26.09.02.05B(2))**

(6) The owner or operator of a $CO_2$ budget unit shall:

(a) Install monitoring systems to monitor $CO_2$ concentration, stack gas flow rate, oxygen concentration, heat input, and fuel flow rate: Cove Point LNG Terminal complies with this condition with the installation of systems, as applicable, to comply with 40 CFR Part 75, Appendix G, Equation G-4)

(b) Install all monitoring systems in accordance with 40 CFR Part 75, except for equation G-1 in Appendix G (see below); and

$$W_{CO_2} = \frac{\left(MW_C + MW_{O_2}\right) \times W_C}{2{,}000\, MW_C} \quad (Eq.\ G\text{-}1)$$

Where:
$Wco_2$=$CO_2$ emitted from combustion, tons/day.
$MW_c$=Molecular weight of carbon (12.0).
$MW_{o2}$=Molecular weight of oxygen (32.0)
$W_c$= Carbon burned, lb./day, determined using fuel sampling and analysis and fuel feed rates.

(c) Record, report, and verify the data from the monitoring systems. **(COMAR 26.09.02.10A(1)(a)-(c))**

(7) Install and certify the monitoring system on or before the following dates:

(a) For a $CO_2$ budget unit that commences commercial operation or constructs a new stack or flue on or after July 1, 2008, the owner or operator shall comply by January 1, 2009, or 90 operating days after the date on which the unit commences commercial operation.

**(COMAR 26.09.02.10A(1)(d))**

(8) The owner or operator of a $CO_2$ budget unit that does not meet the applicable compliance date shall, in accordance with the provisions in 40 CFR §75.31(b)(2) or (c)(3), or §2.4 of Appendix D, determine, record, and report maximum potential or, as appropriate, minimum potential for the following:

(a) $CO_2$ concentration;

(b) $CO_2$ emissions rate;

(c) Stack gas moisture content;

(d) Fuel flow rate; and

(e) Any other parameter required to determine $CO_2$ mass emissions.
**(COMAR 26.09.02.10A(2)(a)-(e))**

(9) The owner or operator of a $CO_2$ budget unit that does not meet the applicable compliance date for any monitoring system shall determine, record, and report substitute data using the applicable missing data procedures in 40 CFR Part 75 Subpart D, or Appendix D, instead of the maximum potential values or, as appropriate, minimum potential values for a parameter, if the owner or operator demonstrates that there is continuity between the data streams for that parameter before and after the construction or installation. **(COMAR 26.09.02.10A(3))**

(10) An owner or operator of a $CO_2$ budget unit or a non-$CO_2$ budget unit monitored under 40 CFR §75.72(b)(2)(ii) may not:

(a) Use any alternative monitoring system, alternative reference method, or any other alternative for the required continuous emissions monitoring system without having obtained prior written approval from the Department;

(b) Operate the unit so as to discharge, or allow to be discharged, $CO_2$ emissions to the atmosphere without accounting for all emissions in accordance with the applicable provisions of this chapter and 40 CFR Part 75;

(c) Disrupt the operation of the CEMS, any portion of the CEMS, or any other approved emissions monitoring method, and thereby avoid monitoring and recording $CO_2$ mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed; or

(d) Permanently discontinue use of the approved CEMS unless the owner or operator monitors emissions with a system approved in accordance with this chapter and 40 CFR Part 75.
**(COMAR 26.09.02.10A(4)(a)-(d))**

(11) For purposes of this subtitle only, the owner or operator of a CO2 budget unit is exempt from demonstrating compliance with the initial certification requirements of 40 CFR §75.20 for a

monitoring system if the following conditions are met:

(a) The monitoring system has been previously certified in accordance with 40 CFR §75.20; and

(b) The applicable quality assurance and quality-control requirements of 40 CFR §75.21 and Appendix B and Appendix D of 40 CFR Part 75 are fully met for the certified monitoring system.
**(COMAR 26.09.02.10B(1)(a)-(b))**

(12) The recertification provisions of this regulation apply to a monitoring system exempt from the initial certification requirements of this regulation. **(COMAR 26.09.02.10B(2))**

(13) If the Department has previously approved a petition under 40 CFR §75.72(b)(2)(ii) or 40 CFR §75.16(b)(2)(ii)(B) pursuant to 40 CFR §75.13 for apportioning the $CO_2$ emissions rate measured in a common stack or a petition under 40 CFR §75.66 for an alternative requirement in 40 CFR Part 75, the $CO_2$ authorized account representative shall resubmit the petition to the Department to determine whether the approval applies under this chapter. **(COMAR 26.09.02.10B(3))**

(14) The owner or operator of a $CO_2$ budget unit shall comply with the initial certification and recertification procedures for a CEMS and an excepted monitoring system under 40 CFR Part 75, Appendix D. **(COMAR 26.09.02.10B(4))**

(15) The owner or operator of a unit that qualifies to use the low mass emissions excepted monitoring methodology in 40 CFR §75.19 or that qualifies to use an alternative monitoring system under 40 CFR Part 75, Subpart E, shall comply with this regulation. **(COMAR 26.09.02.10B(5))**

(16) When the owner or operator replaces, modifies, or changes a CEMS that the Department determines significantly affects the ability of the system to accurately measure or record $CO_2$ mass emissions or to meet the quality assurance and quality control requirements of 40 CFR §75.21 or Appendix B, the owner or operator shall recertify the monitoring system according to 40 CFR §75.20(b). **(COMAR 26.09.02.10C(1))**

(17) When the owner or operator replaces, modifies, or changes the flue gas handling system or the unit's operation in a manner that the Department determines has significantly changed the flow or concentration profile, the owner or operator shall recertify the CEMS according to 40 CFR §75.20(b). **(COMAR 26.09.02.10C(2))**

(18) Approval Process for Initial Certifications and Recertification. The procedures in 40 CFR §75.20(b)(5) and (g)(7) apply for recertification. The $CO_2$ authorized account representative shall submit to the Department:

(a) A written notice of the dates of certification; and

(b) A recertification application for each monitoring system, including the information specified in 40 CFR §75.63.

**(COMAR 26.09.02.10C(3)(a)-(b))**

(19) Provisional Certification Data:

(a) The provisional certification data for a monitor shall be determined in accordance with 40 CFR §75.20(a)(3);

(b) A provisionally certified monitor may be used for a period not to exceed 120 days after receipt of the complete certification application for the monitoring system or component;

(c) Data measured and recorded by the provisionally certified monitoring system or component is considered valid quality assured data, retroactive to the date and time of provisional certification, if the Department does not issue a notice of disapproval within 120 days of receipt of the complete certification application. **(COMAR 26.09.02.10C(4)(a)-(c))**

(20) The Department shall issue a written notice of approval or disapproval of the certification application to the owner or operator within 120 days of receipt of the complete certification application. **(COMAR 26.09.02.10D(1))**

(21) If the Department does not issue the notice within the 120-day period, each monitoring system that meets the applicable performance requirements of 40 CFR Part 75 and is included in the certification application shall be deemed certified for use. **(COMAR 26.09.02.10D(2))**

(22) If the certification application is complete and shows that each monitoring system meets the applicable performance requirements of 40 CFR Part 75, the Department shall issue a written notice of approval of the certification application within 120 days of receipt. **(COMAR 26.09.02.10D(3))**

(23) If the certification application is not complete, the Department shall issue a written notice of incompleteness that sets a reasonable date by which the $CO_2$ authorized account representative is to submit the additional information required to complete the certification application. **(COMAR 26.09.02.10D(4))**

(24) If the $CO_2$ authorized account representative does not comply with the notice of incompleteness by the specified date, the Department may issue a notice of disapproval. **(COMAR 26.09.02.10D(5))**

(25) If the Department issues a notice of disapproval of a certification application or a notice of disapproval of certification status, the owner or operator shall substitute the following values for each disapproved monitoring system, for each hour of unit operation during the period of invalid data beginning with the date and hour of provisional certification and continuing until the time, date, and hour specified under 40 CFR §75.20(a)(5)(i) or 75.20(g)(7):

(a) For units using or intending to monitor for $CO_2$ mass emissions using heat input or for units using the low mass emissions excepted methodology under 40 CFR §75.19, the maximum potential hourly heat input of the unit; or

(b) For units intending to monitor for $CO_2$ mass emissions using a $CO_2$ pollutant concentration monitor and a flow monitor, the maximum potential concentration of $CO_2$ and the maximum potential flow rate of the unit under 40 CFR Part 75, Appendix A, §2.1. **(COMAR 26.09.02.10 D(6)(a)-(b))**

(26) The $CO_2$ authorized account representative shall submit a notification of certification retest dates and a new certification application. The owner or operator shall repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Department's notice of disapproval, not later than 30 operating days after the date of issuance of the notice of disapproval. **(COMAR 26.09.02.10D(7))**

(27) The owner or operator of a unit qualified to use the low mass emissions accepted methodology under 40 CFR §75.19 shall meet the applicable certification and recertification requirements of 40 CFR §§75.19(a) (2) and 75.20(h). **(COMAR 26.09.02.10E(1))**

(28) If the owner or operator of a unit qualified to use the low mass emissions excepted methodology under 40 CFR §75.19 elects to certify a fuel flow meter system for heat input determinations, the owner or operator shall also meet the certification and recertification requirements in 40 CFR §75.20(g). **(COMAR 26.09.02.10E(2))**

(29) Certification and Recertification Procedures for Alternative Monitoring Systems. For each unit for which the owner or operator intends to use an alternative monitoring system approved by the Department, 40 CFR Part 75, Subpart E, shall be used to comply with the applicable notification and application procedures of 40 CFR §75.20(f). **(COMAR 26.09.02.10F)**

(30) When any monitoring system fails to meet the quality assurance and quality control requirements or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable procedures in 40 CFR Part 75, Subpart D, Appendix D. **(COMAR 26.09.02.10G(1))**

(31) Audit Decertification.

(a) Whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or the applicable provisions of 40 CFR Part 75, both at the time of the initial certification or recertification application submission and at the time of the audit, the Department shall issue a notice of disapproval of the certification status of the monitoring system.

(b) By issuing the notice of disapproval, the certification status of the monitoring system is prospectively revoked. **(COMAR 26.09.02.10G(2))**

(32) The data measured and recorded by the monitoring system may not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status. **(COMAR 26.09.02.10G(3))**

## (F) Record Keeping and Reporting Requirements

(1) The $CO_2$ authorized account representative shall comply with all record-keeping and reporting requirements in this Chapter, COMAR 26.09.02, and the applicable record-keeping and reporting requirements under 40 CFR §75.73. **(COMAR 26.09.02.11A)**

(2) The $CO_2$ authorized account representative shall submit quarterly reports as described below in this section. **(COMAR 26.09.02.11B(1))**

(3) The report shall contain the $CO_2$ mass emissions data for the $CO_2$ budget unit in an electronic format, unless otherwise required by the Department, for each calendar quarter beginning with:

(a) For a unit commencing commercial operation on or after July 1, 2008, the calendar quarter corresponding to the earlier of the following dates: (i) date of provisional certification; or (ii) applicable deadline for initial certification. **(COMAR 26.09.02.11B(2)(b))**

(4) The $CO_2$ authorized account representative shall submit each quarterly report within 30 days following the end of the calendar quarter covered by the report and in accordance with 40 CFR Part 75, Subpart H, §75.64 and 40 CFR Part 75, Subpart G except for the opacity, $NO_X$ and $SO_2$ provisions. **(COMAR 26.09.02.11B(4))**

(5) The $CO_2$ authorized account representative shall submit a compliance certification in support of each quarterly report. The certification shall state that:

(a) The monitoring data submitted were recorded in accordance with the applicable requirements of this chapter and 40 CFR Part 75, including the quality assurance procedures and specifications;

(b) For a unit with add-on $CO_2$ emissions controls and for all hours where data are substituted in accordance with 40 CFR §75.34(a)(1) , the add-on emissions controls were operating within the range of parameters listed in the quality assurance and quality control program under 40 CFR Part 75, Appendix B, and the substitute values do not systematically underestimate $CO_2$ emissions; and

(c) The $CO_2$ concentration values substituted for missing data under 40 CFR Part 75, Subpart D, do not systematically underestimate $CO_2$ emissions.
**(COMAR 26.09.02.11B(5)(a)-(c))**

(6) The $CO_2$ authorized account representative of a $CO_2$ budget unit may submit a petition to the Department under 40 CFR §75.66 requesting approval to apply an alternative to any requirement of this chapter. **(COMAR 26.09.02.11C)**

(7) The $CO_2$ authorized account representative or alternate $CO_2$ authorized account representative of a $CO_2$ budget unit that burns eligible biomass as a compliance mechanism under this chapter shall report the following information for each calendar quarter:

(a) For each shipment of solid eligible biomass fuel fired at the $CO_2$ budget unit:
(i) Total eligible biomass fuel input, on an as-fired basis, in pounds; and
(ii)The moisture content, on an as-fired basis, as a fraction of weight;

(b) For each distinct type of gaseous eligible biomass fuel fired at the $CO_2$ budget unit:
(i) The density of the biogas, on an as-fired basis, in pounds per standard cubic foot; and
(ii) The moisture content of the biogas, as a fraction by total weight;

(c) For each distinct type of eligible biomass fuel fired at the $CO_2$ budget unit:
(i) The dry basis carbon content of the fuel type, as a fraction by dry weight;
(ii) The dry basis higher heating value, in MMBtu per dry pound;
(iii) The total dry basis eligible biomass fuel input, in pounds;
(iv) The total eligible biomass fuel heat input; and
(v) Chemical analysis, including heat value and carbon content;

(d) The total amount of $CO_2$ emitted from the $CO_2$ budget unit due to firing eligible biomass fuel, in tons, calculated as in §D(2)(b) of this regulation;

(e) The total heat input to the $CO_2$ budget unit due to firing eligible biomass fuel, in MMBtu, calculated below; and

(f) Description and documentation of monitoring technology and fuel sampling methodology employed, including sampling frequency.
**(COMAR 26.09.02.11D(1)(a)-(f))**

(8) A $CO_2$ budget unit shall submit to the Department the megawatt-hour value and a statement certifying that the megawatt-hour of electrical output reported reflects the total actual electrical output for all $CO_2$ budget units at the facility used by the independent system operator (ISO) to determine settlement resources of energy market participants. **(COMAR 26.09.02.11E(1))**

(9) A $CO_2$ budget unit shall report gross hourly megawatts to the Department in the same electronic data report (EDR) for gross output as submitted to the EPA Administrator, for the operating time in the hour, added for all hours in a year. **(COMAR 26.09.02.11E(2))**

(10) A $CO_2$ budget unit shall submit the net electrical output to the Department in accordance with this regulation. A $CO_2$ budget source whose electrical output is not used in the independent system operator (ISO) energy market settlement determinations shall propose a method for quantification of net electrical output. **(COMAR 26.09.02.11E(3))**

(11) Report of Net Steam Output.
(a) $CO_2$ budget sources selling steam shall use billing meters to determine net steam output or an alternative method to measure net steam output approved by the Department.

(b) If data for steam output is not available, the $CO_2$ budget source may report heat input, substituting useful steam output for steam output.
**(COMAR 26.09.02.11E (4)(a)-(b))**

(12) Each $CO_2$ budget source shall submit an output monitoring plan with a description and diagram that include the following:

(a) If the $CO_2$ budget unit monitors net electric output, the diagram shall contain all $CO_2$ budget units and all generators served by each $CO_2$ budget unit and the relationship between $CO_2$ budget units and generators;

(b) If a generator served by a $CO_2$ budget unit is also served by a nonaffected unit, the nonaffected unit and its relationship to each generator shall be indicated on the diagram;

(c) The diagram shall indicate where the net electric output is measured and include all electrical inputs and outputs to and from the plant;

(d) If net electric output is determined using a billing meter, the diagram shall show each billing meter used to determine net sales of electricity and show that all electricity measured at the point of sale is generated by the $CO_2$ budget units;

(e) If the $CO_2$ budget unit monitors net thermal output, the diagram shall indicate all steam or hot water coming into the net steam system, including steam from $CO_2$ budget units and nonaffected units, and all exit points of steam or hot water from the net steam system;

(f) Each input and output stream shall have an estimated temperature, pressure and phase indicator, and an enthalpy in Btu per pound;

(g) The diagram of the net steam system shall identify all useful loads, house loads, parasitic loads, any other steam loads, and all boiler feedwater returns;

(h) The diagram shall represent all energy losses in the system as either usable or unusable losses;

(i) The diagram shall indicate all flow meters, temperature or pressure sensors, or other equipment used to calculate gross thermal output; and

(j) If a sales agreement is used to determine net thermal output, the diagram shall show the monitoring equipment used to determine the sales of steam.
**(COMAR 26.09.02.11F(2)(a)-(j))**

(13) The description of the output monitoring system shall include:

(a) A written description of the output system and the equations used to calculate output, and, for net thermal output systems, descriptions and justifications of each useful load;

(b) A detailed description of all quality assurance and quality control activities that will be performed to maintain the output system; and

(c) Documentation supporting any output value to be used as a missing data value if there are periods of invalid output data.

(d) The missing data output value shall be either zero or an output value that is likely to be lower than a measured value and approved as part of the required monitoring plan. **(COMAR 26.09.02.11 F(3)(a)-(b))**

(14) A certification statement shall be submitted by the $CO_2$ authorized account representative stating that either:

(a) The output monitoring system consists entirely of billing meters; or

(b) The output monitoring system meets one of the accuracy requirements for nonbilling meters.
**(COMAR 26.09.02.11G(1)(a)-(b))**

(15) The billing meter shall record the electric or thermal output. Any electric or thermal output values reported shall be the same as the values used in billing for the output. **(COMAR 26.09.02.11G(2))**

(16) For nonbilling meters, either the output monitoring system shall meet an accuracy of within 10 percent of the reference value, or each component monitor for the output system shall meet an accuracy of within 3 percent of the full scale value, whichever is less stringent. **(COMAR 26.09.02.11G(3))**

(17) The system approach to accuracy shall include:

(a) A determination of how the system accuracy of 10 percent is achieved using the individual components in the system; and

(b) Data loggers and any wattmeters used to calculate the final net electric output data or any flowmeters for steam or condensate, temperature measurement devices, absolute pressure measurement devices, and differential pressure devices used for measuring thermal energy.
**(COMAR 26.09.02.11G 4)(a)-(b))**

(18) If, upon testing a piece of output measurement equipment, it is determined that the output readings are not accurate to within 3 percent of the full scale value, then the equipment shall be repaired or replaced to meet that requirement. **(COMAR 26.09.02.11G(5))**

(19) Data is invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test. **(COMAR 26.09.02.11G(6))**

(20) Ongoing quality assurance and quality control activities shall be performed in order to maintain the output system. **(COMAR 26.09.02.11H(1))**

(21) If billing meters are used to determine output, quality assurance and quality control activities are not required beyond what are already performed. **(COMAR 26.09.02.11H(2))**

(22) Nonbilling Meters:

(a) Certain types of equipment such as potential transformers, current transformers, nozzle and venturi type meters, and the primary element of an orifice plate only require an initial certification of calibration and do not require periodic recalibration unless the equipment is physically changed.

(b) Pressure and temperature transmitters accompanying an orifice plate will require periodic retesting.

(c) For other types of equipment, the meter accuracy shall be recalibrated or verified at least once every 2 years, unless a consensus standard allows for less frequent calibrations or accuracy tests.

(d) For nonbilling meters, either the output monitoring system shall meet an accuracy of within 10 percent of the reference value, or each component monitor for the output system shall meet an accuracy of within 3 percent of the full-scale value, whichever is less stringent.

(e) If, upon testing a piece of output measurement equipment, it is determined that the output readings are not accurate to within 3 percent of the full-scale value, then the equipment shall be repaired or replaced to meet that requirement.
**(COMAR 26.09.02.11 H(3)(a)-(e))**

(23) Out-of-Control Periods.

(a) If, upon testing a piece of output measurement equipment, it is determined that the output readings are not accurate to the certification value, data is invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test.

(b) All invalid data shall be replaced by either zero or an output value that is likely to be lower than a measured value and that is approved as part of the required monitoring plan.
**(COMAR 26.09.02.11H(4)(a)-(b))**

(24) The $CO_2$ authorized account representative shall submit annual output reports, as follows:

(a) Data shall be sent both electronically and in hardcopy by March 1 for the immediately preceding calendar year; and

(b) The annual report shall include unit level megawatt hours, all useful steam output, and a certification statement from the $CO_2$ authorized account representative stating the following, "I am authorized to make this submission on behalf of the owners and operators of the $CO_2$ budget sources or $CO_2$ budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge

and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."
**(COMAR 26.09.02.11I(1)-(2))**

## (G) $CO_2$ Emission Offset Projects

(1) In order to qualify for the award of $CO_2$ offset allowances, the following offset projects shall satisfy all applicable requirements identified in this chapter:

(a) Landfill methane capture and destruction;

(b) Sequestration of carbon due to afforestation; and

(c) Avoided methane emissions from agricultural manure management operations.
**(COMAR 26.09.03.02A(1)-(3))**

4. Permit Application (See Attachment)

**COVE POINT LNG, L.P.**
**2100 COVE POINT ROAD**
**LUSBY, MARYLAND 20657**
**PART 70 OPERATING PERMIT NO. 24-009-0021**
**PART 70 OPERATING PERMIT FACT SHEET**

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## BACKGROUND

Cove Point LNG, L.P, formerly known as Dominion Energy Cove Point LNG, L.P., owns and operates an existing liquefied natural gas (LNG) storage and terminal facility on the western shore of the Chesapeake Bay near Cove Point in Lusby (Calvert County) Maryland (the Cove Point terminal). The Cove Point facility receives, stores, and vaporizes imported LNG from sea-going tankers and transports vaporized LNG as pipeline-quality natural gas to interconnection points with transmission and distribution points in the mid-Atlantic region. The primary SIC code for the Cove Point terminal is 4922.

The Cove Point terminal currently operates several types of emissions units, including combustion turbines, submerged vaporizers, water-ethylene glycol (WEG) heaters, boilers, emergency generators, fire pumps, and vent heaters.

On July 18, 2017, Dominion Energy submitted notification (received August 4, 2017) to the Department stating Dominion Cove Point LNG, LP changed its name to Dominion Energy Cove Point LNG, LP effective May 12, 2017.

On November 30, 2020, BHE GT&S, LLC submitted notification (via electronic mail) to the Department stating Dominion Energy Cove Point LNG, LP will now be operating as a standalone subsidiary under the name, BHE GT&S, LLC and has changed its name to Cove Point LNG, LP effective November 2, 2020.

Since the last Title V permit was issued, Cove Point has expanded their operations through the Liquefaction Project which commenced operation February 28, 2018 and began commercial operation on April 9, 2018. Dominion filed for a CPCN in April 2013 to expand its existing facilities and construct new facilities to enable its liquefied natural gas (LNG) terminal to function on a bi-directional basis (i.e., add export capabilities to its current import capability). The new liquefaction facilities have an LNG production capacity of up to a nominal 5.75 million metric tons per year of natural gas and include a new 130 MW generating station. The **CPCN 9318** was issued on May 30, 2014 (Order No.86372).

Significant project components include:

- Two Frame 7EA combustion turbines with heat recovery steam generators,
- Two auxiliary boilers,
- One emergency generator,
- Five emergency fire pump engines,
- One thermal oxidizer,
- Two ground flares, North Flare and South Flare,

- Two existing GE Frame 5 combustion turbines to provide a maximum of 25 MW,
- Piping and equipment components, and
- Eight storage vessels for propane, ethane, and condensate.
- Two 0.05 MMBtu/hr. propane vaporizers utilized for flare pilot backup fuel.

CPCN Amendment (approved February 6, 2018, amended February 23, 2018)
In August 2017, DECP filed a request to amend certain conditions of its existing CPCN to remove an unnecessary VOC numeric limit, and to allow for operating flexibility to maintain reliability of the Project. The CPCN was revised as follows:

- Removal of the VOC numeric limit in Condition A-IX-3 for leaks from piping and equipment components.
- Increase the project-wide VOC emission limit in Condition A-III-4 to reflect the updated component count PTE estimates.
- Revise Condition A-I-3(g) to allow for the use of the existing three GE Frame 3 and Solar Titan combustion turbines to supply power for the project as an alternative to the new GE Frame 5 combustion turbines approved as part of the CPCN in 2014.
- Limit the use of the two WEG Heaters (S024 & S025)

The following table summarizes the actual emissions from the Cove Point Terminal based on its Annual Emission Certification Reports:

**Table 1: Actual Emissions**

| Year | NOx (TPY) | SOx (TPY) | $PM_{10}$ (filterable) (TPY) | CO (TPY) | VOC (TPY) | Total HAP (TPY) | Single HAP (TPY) | Methane (TPY) |
|---|---|---|---|---|---|---|---|---|
| 2020 | 160.36 | 1.13 | 8.32 | 70.68 | 16.45 | 5.11 | 3.47 | 161.89 |
| 2019 | 140.83 | 1.15 | 10.37 | 61.63 | 16.21 | 5.61 | 3.52 | 115.30 |
| 2018 | 217.70 | 0.93 | 22.07 | 82.71 | 32.25 | 5.51 | 2.77 | 337.32 |
| 2017 | 122.49 | 0.33 | 5.94 | 48.80 | 11.78 | 2.73 | 1.40 | 492.78 |
| 2016 | 41.14 | 0.15 | 0.88 | 14.40 | 9.78 | 2.33 | 1.15 | 403.32 |

The major source threshold for triggering Title V permitting requirements in Calvert County is 25 tons per year for VOC, 25 tons for NOx, and 100 tons per year for any other criteria pollutants and 10 tons for a single HAP or 25 tons per year for total HAPs. Since the actual NOx emissions from the facility are greater than the major source threshold, Cove Point is required to obtain a Title V – Part 70 Operating Permit under COMAR 26.11.03.01.

On July 3, 2017, the Department received Cove Point's renewal Part 70 permit application for the Cove Point terminal. An administrative completeness review

was conducted, and the application was deemed to be administratively complete. A completeness determination letter was sent to Cove Point on July 12, 2017, granting the Cove Point terminal an application shield. On September 27, 2018, the Department received a significant modification application to add the export plant to the Title V permit. An administrative completeness letter was sent to Cove Point on October 14, 2018, granting the Cove Point terminal an application shield.

## CHANGES AND MODIFICATIONS TO THE PART 70 OPERATING PERMIT

The following changes and/or modifications have been incorporated into the renewal Title V – Part 70 Operating Permit for the Cove Point terminal:

Application to replace the exempt 116JA diesel-fired onshore emergency firewater pump submitted October 21, 2016. The original unit was regulated under NESHAP Subpart ZZZZ. The new unit will be regulated under NSPS Subpart IIII.

Correct the heat input rating description of the Frame 3 Turbines, Frame 5 Turbines, and Solar Turbine from "maximum" to "nominal" throughout the permit.

Clarify Table IV-2, 2.3E of the current Title V Permit to change the wording "Each vaporizer shall...." to "Each vaporizer burner shall..." and include the statement: "This condition does not apply to pilot lights"

The LNG storage tanks listed in the current permit under NSPS Subpart Kb applicability are exempt from NSPS Subpart Kb.

Three (3) emergency diesel-fired air compressors each rated at 475 hp subject to NSPS Subpart IIII.

In accordance with the current Title V Permit Condition 14.2B under Table IV-14, Cove Point is requesting that the requirement for testing of Emissions Units S024 and S025 be removed. Compliance with permit emissions as demonstrated through emissions testing performed on February 25, 2010, and subsequently submitted to MDE on April 8, 2010. Due to the operating status of Emissions Unit S024 and S025, the February 25, 2010, testing was only required under Condition 14.2 within the first two years after startup.

Clarify that Title V Permit Table IV-3, Condition 3.1D is only applicable to emission units S007 and S008 in the permit conditions itself.

Addition of the equipment associated with the Liquefaction Project.

**New Source Performance Standards (NSPS) – 40 CFR Part 60**
Several emission units at the Cove Point terminal are subject to the following NSPS:

**Subpart Db** for Industrial-Commercial-Institutional Steam Generating Units applies to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr.)).
The auxiliary boilers, associated with the Liquefaction Project, each have a maximum input rate of 424 MMBtu/hr. heat input and are therefore subject to this rule.

**Subpart Dc** for Small Industrial-Commercial-Institutional Steam Generating Units applies to each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989, and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).
The liquefaction heater, vent heater, and LNG emergency vent heater have a maximum heat input design capacity of less than 10 MMBtu/hr. and are exempt from Subpart Dc. The ten (10) LNG vaporizers are not considered steam generating units and are not subject to Subpart Dc.
The nine (9) WEG heaters and two (2) hot water boilers have a maximum heat input design capacity greater than 10 MMBtu/hr. but less than 100 MMBtu/hr. each and were installed after the applicability date of Subpart Dc and are therefore subject to this rule.

**Subpart Kb** for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for which construction, reconstruction, or modification commenced after July 23, 1984: the three (3) LNG storage tanks, including two (2) LNG storage tanks constructed as part of the CPX project and one (1) LNG storage tank constructed as part of the re-activation project are potentially subject to the conditions of Subpart Kb as the tanks were installed after the applicability date and have storage capacity greater than 19,812.9 gallons. 40 CFR §60.110b(b) states that Subpart Kb does not apply to storage vessels with a capacity greater than or equal to 151 $m^3$ (39,890 gallons) storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) (approximately 0.5 psi absolute) or with a capacity greater than or equal to 75 $m^3$ but less than 151 $m^3$ storing a liquid with a maximum true vapor pressure less than 15.0 kPa. By definition, the maximum true vapor pressure is the equilibrium partial pressure

exerted by the VOCs in the stored volatile organic liquid. The VOC content of LNG is less than 10 percent by volume, with the two largest VOC constituents being propane and butane. The partial pressure of the components of LNG representing butane and propane range maintained as -260oF is less than 3.5 kPa. Therefore, the LNG tanks are exempt from the Subpart Kb requirements. Additionally, two (2) 35,000-gallon condensate storage tanks (Emission IDs TANK-C1 and TANK-C2) were installed during the Liquefaction Project. Due to the size and contents (i.e., condensate), these tanks were initially exempt from Subpart Kb per 40 CFR §60.110b(d)(4). A change in the initial startup procedures of the Liquefaction Project required an initial fill of TANK-C1 with isopentane. During the process, isopentane was pumped to TANK-C2. The need to use isopentane may also occur in the future. The use of TANK-C1 and TANK-C2 to store isopentane triggered Subpart Kb under 40 CFR §60.110b due to the storage tank size exceeding 75 m3 and the fact that the tanks were being used to store volatile organic liquids. Therefore, TANK-C1 and TANK C-2 are subject to Subpart Kb.

**Subpart GG** for Stationary Gas Turbines applies stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired which commences construction, modification, or reconstruction after October 3, 1977.
The Frame 5 and Solar Turbines were installed after the applicability date but are specifically exempt from this rule based on their applicability to Subpart KKKK. The Frame 3 Turbines were installed in August 1977 and are exempt from this rule.

**Subpart KKK** for Onshore Natural Gas Processing Plants VOC Equipment Leaks applies to affected sources located at onshore natural gas processing plants that commences construction, reconstruction, or modification after January 20, 1984. A natural gas processing plant is defined as a processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both.
The Cove Point Terminal does not meet the definition of a natural gas processing plant and is therefore not subject to the requirements of this subpart.

**Subpart LLL** for Onshore Natural Gas Process: $SO_2$ Emissions apply to sweetening units and sweetening units followed by a sulfur recovery unit which commences construction or modification after January 20, 1984. The Cove Point Terminal currently does not operate a sweetening unit, or a sweetening unit followed by a sulfur recovery unit; therefore, the requirements of Subpart LLL are not applicable.

**Subpart IIII** for Stationary Compression Ignition Internal Combustion Engines applies to stationary compression ignition (CI) internal combustion engines (ICE) constructed after July 11, 2005, and either manufactured after April 1, 2006, or modified or reconstructed after July 11, 2005.
The generators associated with the CPX, and ASU Projects are natural gas-fired generators, therefore this Subpart does not apply to these generators.
Several diesel-fired generators and fire pumps are potentially subject to this subpart. The 360 hp 116JB diesel-fired onshore emergency fire pump was manufactured in July 2008 and the 350 hp 116JA diesel-fired onshore emergency fire pump installed in 2017 was manufactured in 2016. These two units are subject to the requirements of this subpart.
The other diesel-fired engines at the Cove Point terminal were manufactured prior to 2006 and are therefore not subject to Subpart IIII.
Also, the emergency diesel fired generator and fire pump engines associated with the Liquefaction Project are subject to the requirements of this subpart.
Three (3) emergency diesel-fired air compressors each rated 475 hp installed in 2018 are subject to this subpart.

**Subpart JJJJ** for Stationary Spark Ignition Internal Combustion Engines applies to manufacturers, owners, and operators of new stationary spark ignition (SI) internal combustion engines (ICE) based on engine's manufacture and order dates.
The 1085-hp blackstart emergency generator is not subject to this subpart based on its manufacture date (manufactured prior to July 1, 2007).
The two (2) 1,175-hp emergency generators associated with the CPX Project are potentially subject; however, these are lean burn engines with a rating between 500 and 1,350 hp that were manufactured prior to January 1, 2008. Therefore, these generators are also not subject to this subpart.

**Subpart KKKK** for Combustion Turbines: Frame 5, Frame 7 and Solar Titan Combustion Turbines applies to stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005.
The Frame 5, Frame 7 and Solar Turbines were installed after the applicability date of Subpart KKKK and have heat input greater than 10 MMBtu\hr.; therefore, Frame 5 and Solar Turbines are subject to the standards of this subpart.
The Frame 3 combustion turbines were installed before the applicability date of Subpart KKKK and are exempt from the standards of this subpart.

**Subpart OOOO** for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced after August 23, 2011, and or before September 18, 2015 apply to certain well

completions, pneumatic controllers, equipment leaks from natural gas processing plants, sweetening units at natural gas processing plants, reciprocating compressors, centrifugal compressors and storage vessels which are constructed, modified or reconstructed after August 23, 2011.
The Cove Point terminal has not commenced construction, modification or reconstruction after August 23, 2011, and on or before September 18, 2015. Therefore, not subject to Subpart OOOO.

**Subpart OOOOa** for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced after September 18, 2015, establishes emission standards and compliance schedules for greenhouse gases, VOC and sulfur dioxide ($SO_2$). The Liquefaction Project is potentially subject to the requirements for LNG units. However, the last major modification to the Cove Point LNG Terminal (i.e., the Liquefaction Project) began construction in October 2014, also, there have been no affected sources installed after that date, therefore the Cove Point LNG terminal is not subject to Subpart OOOOa.

**National Emission Standard for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63**
The Cove Point terminal is not a major HAP Emissions Source. Instead, it is an area HAP emission source and is subject to the following MACTs:

**Subpart ZZZZ** — Stationary Reciprocating Internal Combustion Engines. Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions: 605 hp, 350 hp, 360 hp, (3) 465 hp, (3) 475 hp and 340 hp diesel-fired engines are subject to this subpart.
The emergency diesel fired generator and fire pump engines associated with the Liquefaction Project are subject to the requirements of this subpart, but compliance is determined by meeting the requirements of 40 CFR Part 60 Subpart IIII.

**Subpart CCCCCC** – Gasoline Dispensing Facilities at Area Sources.
Cove Point Terminal has one tank that stores motor vehicle gasoline that has a capacity of 1,000 gallons.

**Subpart JJJJJJ** – Area Source Boiler MACT- Industrial, Commercial and Institutional boilers and process heaters located at area sources of HAPs. The WEG heaters, LNG vaporizer units, the auxiliary boilers, the liquefaction heater, the fuel gas heater, and the LNG vent heater are exempt from the requirements of this MACT because they are all-natural gas fired units.

## COMPLIANCE ASSURANCE MONITORING (CAM)

Dominion conducted a Compliance Assurance Monitoring (CAM) analysis for the Cove Point terminal and determined that the facility is subject to the (CAM) Rule 40 CFR Subpart 64. Emission sources that are subject to NESHAP or NSPS emission limits or standards promulgated after November 15, 1990, are exempt from CAM requirements per 40 CFR 64.2(b)(i).

CAM is intended to provide a reasonable assurance of compliance with applicable requirements under the Clean Air Act for large emission units that rely on air pollution control (APC) equipment to achieve compliance. The CAM approach establishes monitoring for the purpose of: (1) documenting continued operation of the control measures within ranges of specified indicators of performance (such as emissions, control device parameters, and process parameters) that are designed to provide a reasonable assurance of compliance with applicable requirements; (2) indicating any excursions from these ranges; and (3) responding to the data so that the cause or causes of the excursions are corrected. In order for a unit to be subject to CAM, the unit must be located at a major source, be subject to an emission limitation or standard; use a control device to achieve compliance; have post-control emissions of at least 100% of the major source amount (for initial CAM submittals); and must not otherwise be exempt from CAM. Applicability determinations are made on a pollutant-by-pollutant basis for each emission unit.

CAM Applicability Summary for the Cove Point Terminal is listed in the table below:

| Emission Unit | Add-On Control | Pollutant | Pre-Control PTE>Major Source Threshold | Federally Enforceable Standard | CEM/CPMS | Exemption | Subject to CAM |
|---|---|---|---|---|---|---|---|
| Frame 3 Turbines | SCR | $NO_x$ | Yes | Yes | Yes | 40 CFR 64.2(b)(1)(vi) | No |
| Frame 5 Turbines | SCR | $NO_x$ | Yes | Yes | Yes | 40 CFR 64.2(b)(1)(i) | No |
| | Oxidation Catalyst | CO | Yes | Yes | No | N/A | **Yes** |
| | | VOC | No | Yes | No | N/A | No |
| Solar Turbine | SCR | $NO_x$ | Yes | Yes | Yes | 40 CFR 64.2(b)(1)(i) | No |
| | Oxidation Catalyst | CO | Yes | Yes | No | N/A | **Yes** |
| | | VOC | No | Yes | No | N/A | No |
| Submerged Gas vaporizers | Water injection | $NO_x$ | Yes | Yes | Yes | 40 CFR 64.2(b)(1)(vi) | No |
| Auxiliary Boilers | Oxidation Catalyst | CO | Yes | Yes | No | N/A | **Yes** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Thermal Oxidizer | SCR | NOx | Yes | Yes | No | N/A | **Yes** |

## GREENHOUSE GAS (GHG) EMISSIONS

The Cove Point terminal emits the following greenhouse gases (GHGs) related to Clean Air Act requirements: carbon dioxide, methane, and nitrous oxide. These GHGs originate from various processes (i.e., internal combustion engines, heaters and boilers) contained within the facility premises applicable to the Cove Point terminal. The facility has not triggered Prevention of Significant Deterioration (PSD) requirements for GHG emissions; therefore, there are no applicable GHG Clean Air Act requirements. While there may be no applicable requirements as a result of PSD, emission certification reports for the years 2017 through 2020, showed that the Cove Point terminal is a major source (threshold: 100,000tpy $CO_2e$) for GHG's (see Table 3 shown below). The Permittee shall quantify facility wide GHGs emissions and report them in accordance with Section 3 of the Part 70 permit.

The facility is subject to the Control of Methane Emission from the Natural Gas Industry requirements in COMAR 26.11.41 and the NOx Ozone Season Emission Caps for Non-trading Large NOx Units requirements in COMAR 26.11.40.

The following table summarizes the actual emissions from the Cove Point terminal based on its Annual Emission Certification Reports:

**Table 2: Greenhouse Gases Emissions Summary**

| GHG | Conversion Factor | 2017 tpy $CO_2e$ | 2018 tpy $CO_2e$ | 2019 tpy $CO_2e$ | 2020 tpy $CO_2e$ |
|---|---|---|---|---|---|
| Carbon Dioxide, $CO_2$ | 1 | 324,556 | 1,237,766 | 1,240,224 | 1,193,513 |
| Methane, $CH_4$ | 25 | 12,319.52 | 8,433.00 | 2,882.50 | 4,047.25 |
| Nitrous Oxides, $N_2O$ | 298 | 184.76 | 747.98 | 688.38 | 667.52 |
| Total GHG, $CO_2eq$ | | **337,060** | **1,255,098** | **1,243,795** | **1,198,691** |

## REGIONAL GREENHOUSE GAS INITIATIVE (RGGI) – STATE-ONLY ENFORCEABLE

The Regional Greenhouse Gas Initiative (RGGI), a **state only enforceable program**, is a market-based carbon dioxide ($CO_2$) cap and trade program designed to reduce $CO_2$ emissions from fossil fuel-fired power plants. The Healthy Air Act required Maryland to join RGGI by July 2007. Maryland joined RGGI by signing RGGI's multi-state Memorandum of Understanding (MOU) on

April 20, 2007. The MOU required Maryland to adopt regulations by December 31, 2008, implementing the RGGI program. The Maryland $CO_2$ Budget Trading Program, Code of Maryland Regulations (COMAR) 26.09.01 to .03, became effective on July 17, 2008. COMAR 26.09.04 became effective as an emergency action on April 4, 2008, and as a permanent action on August 25, 2008. The regulations require the following:

1) Implement a cap-and-trade program for $CO_2$ emissions from fossil fuel- fired electric generating units located in Maryland having a capacity of at least 25 megawatts;
2) Distribute $CO_2$ allowances to stakeholders through auction, sale and/or allocation;
3) Require each affected source to have a $CO_2$ budget account representative and a compliance account;
4) Require each budget unit to hold in its source's compliance account at the end of each 3-year control period one allowance for each ton of $CO_2$ emissions emitted in that period;
5) Require sources to monitor emissions and submit quarterly and annual emission reports;
6) Establish set-aside accounts for voluntary renewable purchase, limited industrial generator exemptions, and long-term contract generators;
7) Establish a consumer benefit or strategic energy purpose fund to support energy efficiency, directly mitigate electricity ratepayer impacts, promote renewable or non-carbon emitting energy technologies, stimulate or reward investment in the development of innovative carbon emissions abatement technologies with significant carbon reduction potential, and fund administration of the program; and
8) Establish procedures to evaluate and award allowances to persons who undertake offset projects that will reduce $CO_2$ emissions.
9) Require affected sources to submit an application for a $CO_2$ Budget Permit. When issued, a $CO_2$ Budget Permit will be added as an attachment to the Part 70 permit.

An initial permit (Attachment 1) will be issued in conjunction with the Part 70 permit renewal. The permit has a term of 5 years. The permit is **state-only enforceable**.

**COVE POINT LNG, L.P.**
**2100 COVE POINT ROAD**
**LUSBY, MARYLAND 20657**
**PART 70 OPERATING PERMIT NO. 24-009-0021**
**PART 70 OPERATING PERMIT FACT SHEET**

## EMISSION UNIT IDENTIFICATION

Cove Point Terminal has identified the following emission units as being subject to Title V permitting requirements and having applicable requirements.

**Table 3: Emission Unit Identification**

| Emissions Unit Number | MDE Registration Number | Emissions Unit Name and Description | Date of Installation |
|---|---|---|---|
| S001 | 009-5-0012 (formerly 9-0032) | One (1) natural gas-fired, simple-cycle General Electric Frame 3 combustion turbine (model MS3142) with a nominal rating of 135.6 MMBTU/hr. – used to generate electricity. **Controls:** Selective catalytic reduction (SCR) unit | Turbine – Aug. 1977 SCR – April 2003 SCR-modified 2005 |
| S002 | 009-5-0013 (formerly 9-0033) | One (1) natural gas-fired, simple-cycle General Electric Frame 3 combustion turbine (model MS3142) with a nominal rating of 135.6 MMBTU/hr. – used to generate electricity. **Controls:** Selective catalytic reduction (SCR) unit | Turbine – Aug. 1977 SCR – April 2003 SCR-modified 2005 |
| S003 | 009-5-0014 (formerly 9-0034) | One (1) natural gas-fired, simple-cycle General Electric Frame 3 combustion turbine (model MS3142) with a nominal rating of 135.6 MMBTU/hr. – used to generate electricity. **Controls:** Selective catalytic reduction (SCR) unit | Turbine – Aug. 1977 SCR – April 2003 SCR-modified 2005 |
| S004 | 009-5-0016 through 009-5-0025 | Ten (10) natural gas-fired submerged gas vaporizers, each with a rating of 72 MMBtu/hr. – Used to vaporize LNG<br>S004-16 vaporizer (72 MM BTU/hr.)<br>S004-17 vaporizer (72 MM BTU/hr.)<br>S004-18 vaporizer (72 MM BTU/hr.) | Burners Replaced March 2003 |

| Emissions Unit Number | MDE Registration Number | Emissions Unit Name and Description | Date of Installation |
|---|---|---|---|
| | | S004-19 vaporizer (72 MM BTU/hr.)<br>S004-20 vaporizer (72 MM BTU/hr.)<br>S004-21 vaporizer (72 MM BTU/hr.)<br>S004-22 vaporizer (72 MM BTU/hr.)<br>S004-23 vaporizer (72 MM BTU/hr.)<br>S004-24 vaporizer (72 MM BTU/hr.)<br>S004-25 vaporizer (72 MM BTU/hr.)<br>**Controls:** Water injection system and air-to-fuel ratios | |
| S005 | 009-5-0015 | One (1) LNG emergency vent heater fated at 2.32 MM BTU/hr. – Used, under emergency conditions, to heat cold natural gas vapor for venting to the atmosphere<br>**Controls:** None | March 1978 |
| S006 | 009-9-0022 | One (1) Liquefaction heater rated at 8.9 MM BTU/hr. – Used to supply heat for regenerating zeolite molecular sieve used for cleaning pipeline gas<br>**Controls:** None | Sept. 1995 Re-activation 8/11/2011 |
| S007 | 009-5-0032 | One (1) hot water boiler with a rating of 12.3 MMBTU/hr. equipped with low-$NO_x$ burner– Used to heat water-glycol mixture to enable heat exchangers to heat natural gas for use at the facility.<br>**Controls:** None | Jan. 2003 Modified 6/21/2012 |
| S008 | 009-5-0033 | One (1) hot water boiler with a rating of 12.3 MMBTU/hr. equipped with low-$NO_x$ burner– Used to heat water-glycol mixture to enable heat exchangers to heat natural gas for use at the facility.<br>**Controls:** None | Jan. 2003 Modified 6/21/2012 |
| FL1 – FL6 | 009-9-0022 | Liquefaction equipment components (LEC) – Import Facility | Sept. 1995 Re-activation |

| Emissions Unit Number | MDE Registration Number | Emissions Unit Name and Description | Date of Installation |
|---|---|---|---|
| | | | 8/11/2011 |
| **CPX Project** | | | |
| S009 | 009-5-0049 | One (1) natural gas-fired simple-cycle General Electric Frame 5 Turbine with a nominal rating of 302 MMBtu/hr. equipped with dry-low $NO_x$ combustion (DLN), SCR and oxidation catalyst (OC)<br>**Controls:** DLN, SCR and OC | 2009 |
| S010 | 009-5-0050 | One (1) natural gas-fired simple-cycle General Electric Frame 5 Turbine with a nominal rating of 302 MMBtu/hr. equipped with dry-low $NO_x$ combustion (DLN), SCR and oxidation catalyst (OC)<br>**Controls:** DLN, SCR and OC | 2009 |
| S011– S017 | 009-5-0051 through 009-5-0057 | Seven (7) Johnston water-ethylene glycol (WEG) heaters, each with a rating of 82.3 MMBtu/hr., each equipped with ultra-low $NO_x$ burners (ULNB)<br>**Controls:** None | 2009 |
| S018 | 009-5-0058 | One (1) emergency vent heater rated at 1.3 MMBtu/hr. equipped with low-$NO_x$ burners (LNB).<br>**Controls:** None | 2009 |
| S019 | 009-9-0071 | One (1) natural gas-fired emergency generator with a rating of 1175 hp (825 kW).<br>**Controls:** None | 2009 |
| S020 | 009-9-0072 | One (1) natural gas-fired emergency generator with a rating of 1175 hp (825 kW).<br>**Controls:** None | 2009 |

| Emissions Unit Number | MDE Registration Number | Emissions Unit Name and Description | Date of Installation |
|---|---|---|---|
| **ASU Project** | | | |
| S021 | 009-0021-5-0065 | One (1) natural gas-fired, Solar Titan turbine with nominal rating of 137 MMBtu/hr. equipped with DLN combustors, SCR, and oxidation catalyst. **Controls:** DLN, SCR and OC | 2007 |
| S022 | N/A | One (1) natural gas-fired process heater equipped with Low NOx Burner (LNB) rated at 0.93 MMBtu/hr. **Controls:** None | 2007 |
| S023 | 009-0021-9-0082 | One (1) Caterpillar natural gas-fired lean burn 4 stroke (black-start) emergency generator rated at 1085-hp (920-kW). **Controls:** None | 2007 |
| S024 | 009-0021-5-0060 | One (1) Johnston Water-Ethylene Glycol (WEG) natural gas-fired vaporization heater with a rating of 82.3 MMBtu/hr. equipped with ULNB. **Controls:** None | 2009 |
| S025 | 009-0021-5-0062 | One (1) Johnston Water-Ethylene Glycol (WEG) natural gas-fired vaporization heater with a rating of 82.3 MMBtu/hr. equipped with ULNB. **Controls:** None | 2009 |
| S026 | 009-0021-9-0091 | One (1) Onan 605 hp (400 kW) diesel-fired engine intended for emergency purposes. (MDE PTC Issued 1/18/2013) | Spring 2002 |
| **Liquefaction Facility** | | | |
| S027 & S028 | 009-0021-5-0071 | Two (2) GE Frame 7 combustion turbines (CT) with heat recovery steam generators (HRSGs) each nominally rated at 1,062 MMBtu/hr. with a nominal net shaft power of 87.2 MW rated capacity (116,178 hp | 2017 |

| Emissions Unit Number | MDE Registration Number | Emissions Unit Name and Description | Date of Installation |
|---|---|---|---|
| | | nameplate Power Output), equipped with dry low $NO_x$ (DLN1) combustors, selective catalytic reduction system (SCRs), and oxidation catalysts | |
| S029 & S030 | 009-0021-5-0080 | Two (2) Cleaver Brooks natural gas fired auxiliary boilers each rated at 424 MMBtu/hr. heat input (rated at 427 MMBtu/hr. while firing station process natural gas), each equipped with low $NO_x$ burners, SCRs, and oxidation catalysts | 2017 |
| S034 | 009-0021-9-0092 | One (1) Emergency diesel fired generator rated at 1502 hp | 2017 |
| N/A | 009-0021-9-0093 | Five (5) diesel fired fire pump engines each rated at 350 hp | 2017 |
| S031 | 009-0021-6-0041 | Thermal Oxidizer (56 MMBtu/hr.) equipped with SCR and an oxidization catalyst for Pretreatment process | 2017 |
| S032 & S033 | N/A | Two (2) Ground Flares (North and South) | 2017 |
| FL7 | N/A | Piping and Equipment Component Leaks - Liquefaction (Export ) Facility | 2017 |
| N/A | N/A | Storage tanks (operating on a closed loop system):<br>Four (4) 102,448-gallon operating capacity propane make-up tanks;<br>Two (2) 34,040-gallon operating capacity ethane make-up tanks; and<br>Two (2) 32,429-gallon operating capacity hydrocarbon tanks<br>One (1) propane transfer drum with an operating capacity of 5,538 gallons.<br>Two (2) 0.05 MMBtu/hr. propane vaporizers utilized for flare pilot backup fuel.<br>One (1) nominal 1850-gallon propane North Flare pilot backup tank.<br>One (1) nominal 1000-gallon propane South Flare pilot backup tank. | 2017 |

**COVE POINT LNG, L.P.**
**2100 COVE POINT ROAD**
**LUSBY, MARYLAND 20657**
**PART 70 OPERATING PERMIT NO. 24-009-0021**
**PART 70 OPERATING PERMIT FACT SHEET**

## AN OVERVIEW OF THE PART 70 PERMIT

The Fact Sheet is an informational document. If there are any discrepancies between the Fact Sheet and the Part 70 permit, the Part 70 permit is the enforceable document.

Section I of the Part 70 Permit contains a brief description of the facility and an inventory list of the emissions units for which applicable requirements are identified in Section IV of the permit.

Section II of the Part 70 Permit contains the general requirements that relate to administrative permit actions. This section includes the procedures for renewing, amending, reopening, and transferring permits, the relationship to permits to construct and approvals, and the general duty to provide information and to comply with all applicable requirements.

Section III of the Part 70 Permit contains the general requirements for testing, record keeping and reporting; and requirements that affect the facility as a whole, such as open burning, air pollution episodes, particulate matter from construction and demolition activities, asbestos provisions, ozone depleting substance provisions, general conformity, and acid rain permit. This section includes the requirement to report excess emissions and deviations, to submit an annual emissions certification report and an annual compliance certification report, and results of sampling and testing.

Section IV of the Part 70 Permit identifies the emissions standards, emissions limitations, operational limitations, and work practices applicable to each emissions unit located at the facility. For each standard, limitation, and work practice, the permit identifies the basis upon which the Permittee will demonstrate compliance. The basis will include testing, monitoring, record keeping, and reporting requirements. The demonstration may include one or more of these methods.

Section V of the Part 70 Permit contains a list of insignificant activities. These activities emit very small quantities of regulated air pollutants and do not require a permit to construct or registration with the Department. For insignificant activities that are subject to a requirement under the Clean Air Act, the requirement is listed under the activity.

Section VI of the Part 70 Permit contains State-only enforceable requirements. Section VI identifies requirements that are not based on the Clean Air Act, but

solely on Maryland air pollution regulations. These requirements generally relate to the prevention of nuisances and implementation of Maryland's Air Toxics Program.

## REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

### Emission Unit: S001, S002 & S003 – Combustion Turbines

**S001, S002, & S003** – (009-5-0012, 009-5-0013, & 009-5-0014 formerly 009-9-0032 to 9-0034).
Three (3) natural gas-fired, simple-cycle General Electric Frame 3 combustion turbines (model MS3142), each with a nominal rating of 135.6 MMBTU/hr. – used to generate electricity.
**Controls:** Selective catalytic reduction (SCR) unit

The three (3) GE Frame 3 combustion turbines are not subject New Source Performance Standards (NSPS) for stationary turbines (40 CFR Part 60, Subpart GG).
**§60.330** - Applicability and designation of affected facility.
(a) The provisions of this subpart are applicable to the following affected facilities: All stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired.
(b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after October 3, 1977, is subject to the requirements of this part except as provided in paragraphs (e) and (j) of §60.332.
The combustion turbines were installed prior to the applicability date.

The three (3) GE Frame 3 combustion turbines are not subject to NSPS for Combustion Turbines Subpart KKKK:
**§60.4305** - Does this subpart apply to my stationary combustion turbine?
"(a) If you are the owner or operator of a stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005, your turbine is subject to this subpart."
The combustion turbines were installed prior to the applicability date.

The GE Frame 3 combustion turbines are not subject to the NESHAP for Combustion Turbines Subpart YYYY:

**§63.6090** - What parts of my plant does this subpart cover?
"This subpart applies to each affected source.
(a) Affected source. An affected source is any existing, new, or reconstructed stationary combustion turbine located at a major source of HAP emissions."

The Cove Point terminal is not a major source of HAP emissions.

A Prevention of Significant Deterioration (PSD) Approval and a non-attainment New Source Review (NSR) Approval were issued August 6, 2002, for the reactivation of LNG import service.

A Permit to Construct #009-9-0032 to 9-0034 was issued April 1, 2005, for the modification of the three combustion turbines by replacing the SCR control systems with three Peerless Manufacturing Company SCR control systems using 19% aqua-ammonia supply system and Engelhard Corporation NOxCat ETZ (zeolite) catalyst or equivalent.

Compliance Status
During June 7, 2021, full compliance inspection, the combustion turbines were operating.

Stack Tests performed on the CTs for CO are as follows:

| Emission Unit | Pollutant | Test Date | Test Results | Allowable Limit |
|---|---|---|---|---|
| S003 | CO | May 9, 2017 | 0.00161 lb./MMBtu | 0.045 lb./MMBtu |
| S002 | CO | April 8, 2014 | 0.00581 lb./MMBtu | 0.045 lb./MMBtu |

On February 25, 2009, thru March 4, 2009, the Permittee conducted stack test on the combustion turbines for CO, $NO_X$, and $PM_{10}$. The test results are as follows:

| Emission Unit | Pollutant | Test Results | Allowable Limit |
|---|---|---|---|
| S001 | CO | 0.00486 lb./MMBtu | 0.045 lb./MMBtu |
| | $NO_X$ | 7.22 ppm @ 15% $O_2$ | 12 ppm |
| | $PM_{10}$ | 0.00378 lb./MMBtu | 0.0066 lb./MMBtu |
| S002 | CO | 0.00581 lb./MMBtu | 0.045 lb./MMBtu |
| | $NO_X$ | 9.714 ppm @ 15% $O_2$ | 12 ppm |
| | $PM_{10}$ | 0.00396 lb./MMBtu | 0.0066 lb./MMBtu |
| S003 | CO | 0.0119 lb./MMBtu | 0.045 lb./MMBtu |
| | $NO_X$ | 9.36 ppm @ 15% $O_2$ | 12 ppm |
| | $PM_{10}$ | 0.00386 lb./MMBtu | 0.0066 lb./MMBtu |

**Applicable Standards and limits:**

A. Control of Visible Emissions
**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. "

**Compliance Demonstration:**
The Permittee shall record any incidences of visible emissions and the corrective actions. The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

*Rationale*: The turbines burn only pipeline quality natural gas, a very clean burning fuel. The turbines are designed to operate with no visible emissions and would have to have a very serious malfunction in order for visible emissions to occur. If the Permittee performs preventative maintenance as recommended by the turbine manufacturer and supplemented with the facility's maintenance experiences, the turbines will continue to operate with no visible emissions and minimize the possibility of malfunctions. The Permittee has the general requirement to record and report any excess emissions and corrective measures.

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B. Control of Particulate Matter Emissions
The GE Frame 3 natural gas-fired combustion turbines are subject to PM limit of 0.0066 lbs./MMBtu (filterable) of heat input. Each combustion turbine shall use natural gas as only fuel to meet the PM BACT requirements. **[Reference: PSD Approval #PSD-2002-1 issued 8/6/02].**

**Compliance Demonstration:**
The Permittee shall perform an EPA Reference Test Method 5, 40 CFR Part 60 Appendix A of the exhaust gases in the stacks of at least one of the combustion turbines at the import facility once during the term of the permit. The combustion turbine shall be operating at no less than 90% of its rated capacity during stack emissions testing. The Permittee shall alternate the combustion turbines being

tested. The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. The Permittee shall maintain the following on site for at least 5 years: records of stack testing results; record of the date, time and description of maintenance performed on the combustion turbines and shall submit records to the Department upon request. The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the stack tests to the Department within 60 days of completion of the tests. **[Reference: COMAR 26.11.03.06C]**

*Rationale*: Dominion completed a stack test on the combustion turbines at the terminal in December 2011 (based on the Solar combustion turbine). The PM limit for the Frame 3 combustion turbines is 0.0066 lb./MMBtu and the test result was 0.000203 lb./MMBtu (filterable only) which is 3% of the permit limit. Dominion monitors other parameters that are indicative of proper operation and maintenance of the turbines and SCRs including chemical reagent use. In addition, the Frame 3 combustion turbines burn only natural gas as a fuel. When equipment is properly maintained, emissions from natural gas are stable and relatively low.
A recent $PM_{10}$ (Feb 18-19, 2016, based on Solar Combustion Turbine) stack test results was 0.0005 lb./MMBtu (filterable) which is 8% of the permit limit.

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C. Control of Nitrogen Oxides
**COMAR 26.11.09.08G.** - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.
"(2) A person who owns or operates a combustion turbine with a capacity factor greater than 15 percent shall meet an hourly average $NO_X$ emission rate of not more than 42 ppm when burning gas or 65 ppm when burning fuel oil (dry volume at 15 percent oxygen) or meet applicable Prevention of Significant Deterioration limits, whichever is more restrictive. "

The GE Frame 3 natural gas-fired combustion turbines are subject to the $NO_X$ emission limit of 12 ppm of dry gas corrected to 15% $O_2$. Compliance with this emission limit shall be assessed on a 30-day rolling average. **[Reference: PSD Approval #PSD-2002-1 & NSR Approval #NSR-2002-01 issued 8/6/02].**

**Compliance Demonstration:**
The Permittee shall continuously monitor the $NO_X$ emission of the stack gases using a $NO_X$ Continuous Emission Monitor (CEM) that is certified in accordance 40 CFR Part 60, Appendix B, or Part 75, Appendix A and meet the quality

assurance criteria in 40 CFR Part 60, Appendix F. **[Reference: COMAR 26.11.09.08(B)(2)(b&c)]**

The following records shall be kept on the premises for at least 5 years and shall be made available to the Department upon request:

(a) The amount of natural gas burned in each combustion turbine, million BTU per month;

(b) The amount of chemical reagent usage for $NO_x$ emission control, pounds per month;

(c) All CEM system monitoring data, which are used to demonstrate compliance with the emission limits;

(d) All stack emissions test report;

(e) $NO_x$ emission rates, pounds per million BTU of heat input, for each combustion turbine;

(f) Monthly $NO_x$ emissions from each combustion turbine.

(g) All CEM certifications and calibration results; and

(h) The repairs and maintenance made to the SCR or oxidation catalyst emission control devices or the $NO_x$ CEM system.

**[Reference: MDE Permit to Construct #009-9-0032 to 9-0034 issued on 8/6/02 (modified on 4/1/05) and NSR Approval #NSR-2002-01 issued 8/6/02]**

The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following:

(i) The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards;

(ii) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;

(iii) The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the validity of emission data;

(iv) Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter;

(v) Quarterly quality assurance activities; and

(vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and

(vii) Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation."

CEM System Downtime Reporting Requirement: The Permittee shall report all system downtime, other than downtime generated from routine calibration failures, that lasts or is expected to last more than 24 hours to the Department by telephone or email before 10 a.m. of the first regular business day following the breakdown. The system breakdown report shall include the reason, if known, for

the breakdown and the estimated period of time that the CEM will be down. The owner or operator of the CEM shall notify the Department by telephone when an out-of-service CEM is back in operation and producing valid data. **[Reference: COMAR 26.11.03.06C]**

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D. Control of Carbon Monoxide (CO) Emissions

The GE Frame 3 natural gas-fired combustion turbines are subject to the CO BACT emissions limit of 0.045 lbs./MMBtu of heat input assessed by CO stack emission tests. Each combustion turbine shall use natural gas as only fuel and operate within the appropriate ranges of good combustion operating parameters established during performance tests to meet the CO BACT requirements. **[Reference: PSD Approval #PSD-2002-1 issued 8/6/02]**

**Compliance Demonstration:**

The Permittee shall perform stack testing to demonstrate compliance with CO BACT emission limit in the exhaust gases of the stack of at least one of the combustion turbines once during the term of this permit. The combustion turbine shall be operating at no less than 90% of its rated capacity during stack emission testing. **[Permit to Construct #009-9-0032 to 9-0034 issued on 8/6/02 (modified on 4/1/05)]**

The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**

The Permittee shall maintain the following records on site for a period of at least 5 years:

(1) Plans with the appropriate ranges established for good combustion operating parameters to reduce CO emissions from the combustion turbines;

(2) The cause and time periods, except during start-up and shut-down phases, which the combustion turbines did not operate within the appropriate ranges of the good combustion operating parameters established for air emission reduction; and.

(3) Stack testing results and record of the date, time and description of maintenance performed on the combustion turbines

**[Reference: PSD Approval #PSD-2002-1 issued 8/6/02; COMAR 26.11.03.06C]**

The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the stack tests to the Department within 60 days of completion of the tests. The stack test reports shall include the following information:

(1) Emissions data including the pollutant concentration, gas volume, temperature, and oxygen content of the combustion exhaust gases leaving the exhaust stack;

(2) Hourly fuel usage rate of fuel consumed by the emission source during the testing period, million Btu/hr. and
(3) The operation procedures of good combustion practices.
**[Reference: MDE Permit to Construct #009-9-0032 to 9-0034 issued on 8/6/02 (modified on 4/1/05)]**

*Rationale*: Dominion completed a stack test on the combustion turbines at the facility in February/March 2009. The CO limit for the Frame 3 combustion turbines is 0.045 lb./MMBtu and the test results ranged from 0.0049 lb./MMBtu. 11% of the permit limit to 0.0119 lb./MMBtu, 26% of the permit limit. In addition, the Frame 3 combustion turbines burn only natural gas as a fuel. When equipment is properly maintained, emissions from natural gas are stable and relatively low.
A recent CO stack test (based April 18, 2014, on Unit 111JB-S002) result is 0.005lb/MMBtu which is 11% of the permit limit.

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**Emission Unit: S004 - Vaporizers**

**S004** – (009-5-0016 through 009-5-0025).
Ten (10) T-Thermal (model HV-12049) natural gas-fired submerged combustion vaporizers (SCV), each with a rating of 72 MMBtu/hr., equipped with a water injection system.: – Used to vaporize LNG
S004-16 vaporizer (72 MM BTU/hr.)
S004-17 vaporizer (72 MM BTU/hr.)
S004-18 vaporizer (72 MM BTU/hr.)
S004-19 vaporizer (72 MM BTU/hr.)
S004-20 vaporizer (72 MM BTU/hr.)
S004-21 vaporizer (72 MM BTU/hr.)
S004-22 vaporizer (72 MM BTU/hr.)
S004-23 vaporizer (72 MM BTU/hr.)
S004-24 vaporizer (72 MM BTU/hr.)
S004-25 vaporizer (72 MM BTU/hr.)
**Controls:** Water injection system and air-to-fuel ratios.

The vaporizers are not subject to the NSPS for small industrial-institutional-commercial steam generating units, Subpart Dc.
**§60.40c -** Applicability and delegation of authority.
(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989, and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British

thermal units per hour (MMBtu/hr.)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr.).
The vaporizers were installed 19 years prior to the applicability date.

*Please Note*: Dominion requested that the testing requirements be modified to include a more realistic maximum operating scenario of 5 vaporizers operating at 90% or more of their maximum capacity. Due to the design of the Cove Point terminal's operations, normal operating conditions would involve only 5 or 6 vaporizers in operation at one time. The Cove Point terminal may only rarely use all 10 vaporizers operating at maximum capacity all at one time.

Compliance Status
During the June 7, 2021, full compliance inspection, no vaporizer was operating.

In general, the vaporizers have not been utilized to a great extend over the last few years due to the North America decrease in demand for imported natural gas. The annual testing of the vaporizers will resume when they are put into operation again.

On March 3, 2010, three of the vaporizers (5-0018, 5-0019, 5-0020) from Emission Unit S004 were stack tested for $NO_X$ and CO emissions. The purpose of the testing was to demonstrate compliance with the operating limits for $NO_X$ and CO while operating the vaporizers at an air to fuel ratio at 10.75 or above and using water injection. The results showed that the CO emissions ranged from 0.089 – 0.014 lb./MMBtu, all below the 0.16 lb./MMBtu CO limit. The $NO_X$ emission ranged from 0.035 – 0.047 lb./MMBtu, all below the 0.0605 lb./MMBtu $NO_X$ limit.

**Applicable Standards and limits:**

A. Control of Visible Emissions
**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. "

**Compliance Demonstration:**
The Permittee shall record any incidences of visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C]** The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

*Rationale:* The vaporizers burn only pipeline quality natural gas, a very clean burning fuel. The vaporizers are designed to operate with no visible emissions and would have to have a very serious malfunction in order for visible emissions to occur. If the Permittee performs preventative maintenance as recommended by the vaporizer manufacturer and supplemented with the facility's maintenance experiences, the vaporizers will continue to operate with no visible emissions and minimize the possibility of malfunctions. The Permittee has the general requirement to record and report any excess emissions and corrective measures.

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B. Control of Particulate Matter Emissions
The ten (10) natural gas-fired submerged combustion vaporizers (SCV) are subject to PM limitation from the ten vaporizers to 0.0076 lbs./MMBtu (filterable) of heat input. **[Reference: PSD Approval #PSD-2002-1 issued 8/6/02].**

**Compliance Demonstration:**
The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. The Permittee shall maintain a record of the date, time and description of maintenance performed on the vaporizers and shall submit records to the Department upon request. The Permittee shall submit records of maintenance performed on the vaporizers upon request. **[Reference: COMAR 26.11.03.06C]**

*Rationale*: Cove Point completed an initial performance test on the submerged combustion vaporizers in December 2003. The PM limit for the vaporizers is 0.0076 lb./MMBtu and the test results were 0.0042 lb./MMBtu, which is 55% of the permit limit. The submerged combustion vaporizers burn only natural gas as a fuel. Dominion continuously monitors the water injection rate and the air-to-natural gas ratio on each of the submerged combustion vaporizer when operating to ensure optimal control of emissions for the units. When the equipment is properly maintained, emissions from natural gas are stable and relatively low.

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C. Control of Nitrogen Oxides
**COMAR 26.11.09.08B.** - General Requirements and Conditions.
"(1) Emission Standards and Requirements.

(a) A person who owns or operates an installation that causes NOx emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation.
(b) Not Applicable.
(c) Emission Standards in Pounds of NOx per Million Btu of heat input. – Gas only: 0.2. "

The ten (10) natural gas fired SCV are subject to the NOx emission limit from the ten vaporizers of 0.0605 lb./MMBtu of heat input. **[Reference: PSD Approval #PSD-2002-1 issued 8/6/02].**

**Compliance Demonstration:**
The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**
The Permittee shall operate each vaporizer, for normal operation (i.e., greater than 35% firing rate), with the water injection system to reduce NOx emissions. The water injection rate shall range from 7 to 22 gallons per hour (gph) per burner on a 3-hour block average established during the NOx emission testing. The Permittee shall monitor and record the water injection rate (gph) on a 3-hour block average when the vaporizer is operating. **[Reference: MDE Permit to Construct #009-5-0016 to 0025M issued 6/26/06, PSD Approval #PSD-2002-1, and NSR Approval #NSR-2002-01 issued on 8/6/02]**
The Permittee shall maintain the following records on-site for a period of at least five years:
(1) Monthly natural gas usage in millions BTU per month for each vaporizer;
(2) Water injection rate (gph) on a 3-hour block average to each burner to reduce NOx emissions from the vaporizers; and
(3) Monthly NOx emissions from each vaporizer.
(4) Record of the date, time and description of maintenance performed on the vaporizers and shall submit records to the Department upon request.
**[Reference: COMAR 26.11.03.06C, PSD Approval #PSD-2002-1, and NSR Approval #NSR-2002-01 issued 8/6/02]**
The Permittee shall submit to the Department not later than 30 days following each calendar quarter a quarterly summary report. The report shall be in a format approved by the Department and shall include the following information for the water injection rate to each burner:
(a) Total operating time for each vaporizer during the quarter;
(b) The cause, time periods, and dates, and the magnitude of water flow faults except start-up and shut-down phases;
(c) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;

(d) The time periods and cause of all Combustion Monitoring System downtime including records of any repair, adjustment, or maintenance that may affect the validity of the water injection rate;
(e) Quarterly totals of water flow faults;
(f) General maintenance and repair activities conducted; and
(g) Monthly NOx emissions from each vaporizer.
**[Reference: COMAR 26.11.03.06C and MDE Permit to Construct #009-5-0016 through 5-0025M issued 6/26/06]**

*Rationale*: The most recent stack test on the submerged combustion vaporizers for emission of NOx were completed between March 2008 and March 2010. The NOx limit for the submerged combustion vaporizers is 0.0605 lb./MMBtu and the test results ranged from 0.0336 lb./MMBtu to 0.0478 lb./MMBtu, which is 56% to 79% of the permit limit. Cove Point also continuously monitors the water injection rate on each submerged combustion vaporizer when operating and therefore can easily monitor and optimize the control of NOx emissions when operating the units.

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D. Control of Carbon Monoxide (CO) Emissions
The ten (10) natural gas-fired submerged combustion vaporizers (SCV) are subject to the CO BACT emissions limit of 0.16 lbs./MMBtu of heat input. Each vaporizer shall use natural gas as only fuel and operate within the appropriate ranges of good combustion operating parameters established during performance tests to meet the CO BACT requirements. **[Reference: PSD Approval #PSD-2002-1 issued 8/6/02]**

**Compliance Demonstration:**
The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**
Each vaporizer burner shall use natural gas only and shall be operated at an air-to-natural gas (A/G) ratio of 10.75 or greater on a 3-hour block average (Good Combustion Practice Parameters) unless the Permittee has demonstrated to the Department's satisfaction that the vaporizers meet the CO limit of 0.16 lbs./MMBtu of heat input at a lower A/G value. **[Reference: COMAR 26.11.03.06C and PSD Approval #PSD-2002-1 issued 8/6/06]**
Note: This condition does not apply to pilot lights.
The Permittee shall maintain the following records on-site for a period of at least five years:
(1) Air-to-gas ratio on a 3-hour block average;
(2) The plans with the appropriate ranges established for good combustion operating parameters to reduce CO emissions from the vaporizers; and

(3) The cause and time periods, except during start-up and shut-down phases, which the vaporizers did not operate within the appropriate ranges of the good combustion operating parameters established for CO emission reduction.
(4) Record of the date, time and description of maintenance performed on the vaporizers and shall submit records to the Department upon request.
**[Reference: COMAR 26.11.03.06C and PSD Approval #PSD-2002-1 issued 8/6/06]**
The Permittee shall submit to the Department not later than 30 days following each calendar quarter a quarterly summary report. The report shall be in a format approved by the Department and shall include the following information of the A/G ratio for each vaporizer:
(a) Total operating time for each vaporizer during the quarter;
(b) The cause, time periods, and dates, and the magnitude of non-compliance of the A/G ratio except start-up and shut-down phases;
(c) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;
(d) The time periods and cause of all Combustion Monitoring System downtime including records of any repair, adjustment, or maintenance that may affect the validity of A/G ratio;
(e) Quarterly totals of non-compliance of A/G ratio; and
(f) General maintenance and repair activities conducted.
**[Reference: COMAR 26.11.03.06C]**

*Rationale*: The most recent stack test on the submerged combustion vaporizers for emission of CO were completed between March 2008 and March 2010. The CO limit for the submerged combustion vaporizers is 0.16 lb./MMBtu and the test results ranged from 0.026 lb./MMBtu to 0.125 lb./MMBtu, which is 16% to 78% of the permit limit. Dominion also continuously monitors the air-to-natural gas ratio on each submerged combustion vaporizer when operating and therefore can be easily monitor and optimize the control of CO emissions when operating the units.

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**Emission Unit: S005, S006, S007 & S008 – Heaters & Boilers**

**S005** – (009-5-0015).
One (1) Black, Sivalls & Bryson (model 2500 SGIH) natural gas-fired LNG emergency vent heater rated at 2.32 MM BTU/hr.: – Used, under emergency conditions, to heat cold natural gas vapor for venting to the atmosphere
**Controls:** None

**S006** – (009-9-0022).
One (1) HEATEC (model HCI-6010-50G) natural gas-fired Liquefaction heater rated at 8.9 MM BTU/hr. – Used to supply heat for regenerating zeolite molecular sieve used for cleaning pipeline gas
**Controls:** None

**S007 & S008** – (009-5-0032 & 009-5-0033).
Two (2) Johnston Boiler Co. (PFTA-300-4-G) natural gas-fired packaged firetube hot water boilers, each with a rating of 12.3 MMBTU/hr. and equipped with low-$NO_x$ burner: – Used to heat water-glycol mixture to enable heat exchangers to heat natural gas for use at the facility.
**Controls:** None

**S007 & S008** (installed in 2003) are subject to NSPS for small industrial-institutional-commercial steam generating units, Subpart Dc.
**§60.40c -** Applicability and delegation of authority.
(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989, and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr.)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr.).

The emergency vent heater (installed in 1978) and the liquefaction heater (installed in 1995) have a maximum heat input design capacity less than 10 MMBtu/hr. and are exempt from Subpart Dc.

Compliance Status
During the June 7, 2021, full compliance inspection, S005 was not operating. This unit very rarely runs. Records of fuel used, amount of fuel used, and maintenance records are maintained at the facility and tune-up are conducted annually.

**Applicable Standards and limits:**

A. Control of Visible Emissions
**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. "

**Compliance Demonstration:**
The Permittee shall record incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.03.06C]** The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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B. Control of Nitrogen Oxides
**COMAR 26.11.09.08B(5)** - Operator Training.
(a) "For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
(b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department."
**COMAR 26.11.09.08E**. - Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 Million Btu Per Hour or Less. "A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 Million Btu per hour or less shall:
(1) Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each; *(Already Completed)*
(2) Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis;
(3) Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request;
(4) Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
(5) Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request."

**Compliance Demonstration:**
The Permittee shall perform combustion analysis on the heaters and boilers at least once per year and optimize combustion based on the analysis. **[Reference: COMAR 26.11.09.08E(2)]**
The Permittee shall maintain the following records on-site for a period of at least five years:
(1) Training program attendance for each operator at the site and make these records available to the Department upon request.
(2) Results of combustion analysis.
**[Reference: COMAR 26.11.09.09E(3)&(5)]**
The Permittee shall submit:
(1) The results of combustion analysis to the department and the EPA upon request. **[Reference: COMAR 26.11.09.08E(3)]**
(2) A record of training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08E(5)].**

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C. Operational Limits
CO/NOx/PM BACT Limitations: The BACT requirements include use of natural gas, good combustion practices, and installation of low $NO_x$ burners with flue gas re-circulation. **[Reference: MDE Permit to Construct Number 009-0021-5-0032 & 009-0021-5-0033 issued on 6/21/12]**

**Compliance Demonstration:**
The Permittee shall monitor the amount of fuel used. The Permittee shall maintain records on-site for a period of at least five years and make available to the Department upon request: fuel combusted in million Btu per month and applicable operating/maintenance actions. **[Reference: COMAR 26.11.03.06C]**

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**For S007 & S008 only**
D. NSPS for PM and $SO_x$ Emissions
**40 CFR Part 60** Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
**§60.40c** - Applicability and delegation of authority.
(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h). Since the heaters are fired on natural gas only, the record keeping and reporting requirements **§60.48c** apply.

**Compliance Demonstration:**
**§60.48c** - Reporting and recordkeeping requirements.
"(g)(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only **natural gas**, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the $SO_2$ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to **record and maintain records of the amount of each fuel combusted during each calendar month.**

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**Emission Unit: FL1-FL6**

**FL1-FL6** – (009-0021-9-0022)
Liquefaction equipment components (LEC) – Import Facility.

Liquefaction equipment components were installed in 1995. Because it cannot liquefy and vaporize natural gas simultaneously, the liquefaction equipment components have been idled since 2001. A Permit to construct was issued on August 8, 2011, for the Reactivation of the liquefaction unit and the installation of a higher-capability variable speed drive to the liquefier compressor motor.

Compliance Status
During the June 7, 2021, full compliance inspection, LEC was not operating, Records of the following are maintained at site: additions and constituents of refrigerant, shutdown vents. Leaks are detected by proximity meters and repaired promptly.

**Applicable Standards and limits:**

A. Control of Visible Emissions
**COMAR 26.11.06.02C.** - Visible Emission.
"(**1**) In Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity.
**COMAR 26.11.06.02A.** - General Exceptions
(**2**) The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications 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 60-minute period. "

**Compliance Demonstration:**
The Permittee shall record incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements.

**[Reference: COMAR 26.11.03.06C]** The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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B. Control of VOC Emissions
**COMAR 26.11.06.06B**. - Control of VOC from Installations.
"(2) The following requirements apply in Calvert, Cecil, Charles, and Frederick counties:
(c) Installations Constructed on or After November 15, 1992. Except as provided in §E of this regulation, a person may not cause or permit the discharge of VOC from any installation constructed on or after November 15, 1992, in excess of 20 pounds (9.07 kilograms) per day unless the discharge is reduced by 85 percent or more overall. "

The VOC emissions are limited to 33.8 tons for any 12-month period rolling monthly for emission units associated with the 2002 re-activation project and the CPX expansion. The VOC emissions are limited to 48.7 tons for any 12-month period, rolling monthly, for the re-activation sources only. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06 & MDE Permit to Construct Number 009-0021-9-0022 issued on 8/8/11)].**

**Compliance Demonstration:**
The Permittee shall continuously monitor the constituents of the refrigerant while the liquefaction unit is operating. The Permittee shall monitor the amount of isopentane added to the liquefier from the tanker storage. The Permittee shall monitor the leaks from flanges, connectors, valves, and seals associated with the liquefaction unit and shall repair each leak within 24 hours after it is detected. The Permittee shall utilize a flow meter to measure the amount of natural gas burned in the liquefaction heater. **[Reference: MDE Permit to Construct Number 009-0021-9-0022 issued 8/8/11 & COMAR 26.11.03.06C]**
The Permit shall maintain on site for at least five years and make available to the Department upon request records of the following:
Amount of refrigerant added to the system and the date it was added.
For each VOC leak, the date of each leak being detected, the location of the leak, and the date of the leak was repaired.
For each shutdown venting of the refrigerant, the cause and date for each shutdown venting, and how much refrigerant and VOC emission was released to the atmosphere. **[Reference: MDE Permit to Construct #009-021-9-0022 issued 8/8/11]**

The Permit shall maintain on site for at least five years and make available to the Department upon request records of the following: premise-wide VOC emissions

for any 12-month period, rolling monthly. **[Reference: MDE Permit to Construct #009-021-9-0022 issued 8/8/11 and NSR Approval #NSR-2005-01 issued 6/26/06]**
The Permittee shall report incidents of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

The Permittee shall submit to the Department no later than 30 days following each calendar quarter a quarterly report. The report shall be in a format approved by the Department and shall include monthly VOC emission calculations. **[Reference: MDE Permit to Construct #009-0021-9-0022 issued on 8/8/11 & NSR Approval #NSR-2005-01 issued 6/26/06**

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C. Operational Limits
The shutdown venting of refrigerant shall be limited to four (4) occurrences during any 12-month period, rolling monthly. The Permittee shall take all necessary precautions to prevent any unnecessary shutdown venting of refrigerant. **[Reference: MDE Permit to Construct Number 009-0021-9-0022 issued 8/8/11]**

**Compliance Demonstration:**
The Permittee shall maintain records on-site for a period of at least five years and make available to the Department upon request: total number of shutdown venting occurrences for any 12-month period, rolling monthly. **[Reference: MDE Permit to Construct #009-021-9-0022 issued 8/8/11 & COMAR 26.11.03.06C]**

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**Emission Unit: S009 & S010 – Combustion Turbines**

**S009 & S010** – (009-5-0049 & 009-5-0050).
Two (2) General Electric Frame 5 Turbine natural gas-fired simple-cycle with a nominal rating of 302 MMBtu/hr. equipped with dry-low $NO_x$ combustion (DLN), SCR and oxidation catalyst (OC)
**Controls:** DLN, SCR and OC.

The GE Frame 5 combustion turbines are subject to NSPS for Combustion Turbines Subpart KKKK:
**§60.4305** - Does this subpart apply to my stationary combustion turbine?
"(a) If you are the owner or operator of a stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel, which commenced

construction, modification, or reconstruction after February 18, 2005, your turbine is subject to this subpart."

Stationary combustion turbines subject to Subpart KKKK are exempt from the requirements of Subpart GG.

The GE Frame 5 combustion turbines are not subject to the NESHAP for Combustion Turbines Subpart YYYY:
**§63.6090** - What parts of my plant does this subpart cover?
"This subpart applies to each affected source.
(a) *Affected source*. An affected source is any existing, new, or reconstructed stationary combustion turbine located at a major source of HAP emissions."

The Cove Point terminal is not a major source of HAP emissions.

Compliance Status
During June 7, 2021, full compliance inspection, S009 and S010 was not in operation.

The most recent GE Frame 5 combustion turbines 214JA (S009) and 214JB (S010) was conducted on December 1-2, 2020. The results are as follows:

| Emission Unit | Pollutant | Test Results | Allowable Limit |
|---|---|---|---|
| S010 | CO | 0.705 ppmvd @ 15% $O_2$ | 6.0 ppm @ 15% $O_2$ |
| | VOC | <0.000184 lb./MMBtu | 0.003 lb./MMBtu |
| S009 | CO | 5.79 ppmvd @ 15% $O_2$ | 6.0 ppm @ 15% $O_2$ |
| | VOC | <0.000189 lb./MMBtu | 0.003 lb./MMBtu |

Combustion turbine stack test for CO, and VOC was conducted on April 21, 2016, and March 8, 2017. The test results are as follows:

| Emission Unit | Pollutant | Test Date | Test Results | Allowable Limit |
|---|---|---|---|---|
| S010 | CO | April 21, 2016 | 4.4 ppmvd @ 15% $O_2$ | 6.0 ppm @ 15% $O_2$ |
| | VOC | April 21, 2016 | 0.000 lb./MMBtu | 0.003 lb./MMBtu |
| S009 | CO | March 8, 2017 | 0.930 ppmvd @ 15% $O_2$ | 6.0 ppm @ 15% $O_2$ |
| | VOC | March 8, 2017 | 0.000114 lb./MMBtu | 0.003 lb./MMBtu |

On December 21, 2008, the Permittee conducted stack test on the combustion turbines for CO, $NO_X$, VOC and $PM_{10}$. The test results are as follows:

| Emission Unit | Pollutant | Test Results | Allowable Limit |
|---|---|---|---|

| | | | |
|---|---|---|---|
| S009 | CO | 0.0000001 ppm | 6.0 ppm @ 15% $O_2$ |
| | $NO_X$ | 2.4 ppm @ 15% $O_2$ | 2.5 ppm |
| | $PM_{10}$ | 0.0185 lb./MMBtu | 0.0066 lb./MMBtu |
| | VOC | 0.357 ppm @ 15% $O_2$ | 2 ppm @ 15% $O_2$ |
| S010 | CO | 1.01 ppm | 6.0 ppm @ 15% $O_2$ |
| | $NO_X$ | 2.17 ppm @ 15% $O_2$ | 2.5 ppm |
| | $PM_{10}$ | 0.021 lb./MMBtu | 0.0066 lb./MMBtu |
| | VOC | 0.494 ppm @ 15% $O_2$ | 2 ppm @ 15% $O_2$ |

$PM_{10}$ emissions are over the allowable $PM_{10}$ BACT limit of 0.0066 lb./MMBtu (filterable and condensable). A notice of violation was issued February 23, 2009. The Permittee was asked to submit new test protocol incorporating revised test method 202 & furnish a survey of PM BACT survey. The Permittee provided all items requested on April 29, 2009. In 2011, the Permittee was asked to use the new protocol on the Solar turbine (12 MW) to show compliance with the 0.0066 lb./MMBtu $PM_{10}$ (filterable and condensable) limit. A test was conducted Jan 11, 2012, on the Solar turbine (311J) and the result was 0.0037 lb./MMBtu which shows compliance with the limit.

**Applicable Standards and limits:**

A. Control of Visible Emissions
**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. "

**Compliance Demonstration:**
The Permittee shall record any incidences of visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C]** The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

B. Control of Particulate Matter Emissions

The GE Frame 5 natural gas-fired combustion turbines are subject to PM limit of 0.0066 lbs./MMBtu (filterable) of heat input. Each combustion turbine shall use natural gas as only fuel to meet the PM BACT requirements. **[Reference: PSD Approval #PSD-2005-01 issued 6/26/06].**

**Compliance Demonstration:**

The Permittee shall perform an EPA Reference Test Method 5, 40 CFR Part 60 Appendix A of the exhaust gases in the stacks of at least one of the combustion turbines at the import facility once during the term of the permit. During emission testing, the combustion turbine shall operate at 90% or higher of its rated capacity. The Permittee shall alternate the combustion turbines being tested. **[Reference: COMAR 26.11.03.06C & PSD Approval #PSD-2005-01 issued 6/26/06]**

The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. The Permittee shall maintain the following on site for at least 5 years: records of stack testing results; record of the date, time and description of maintenance performed on the combustion turbines and shall submit records to the Department upon request. The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the stack tests to the Department within 60 days of completion of the tests. **[Reference: COMAR 26.11.03.06C]**

*Rationale*: Dominion completed an initial performance test on the combustion turbines at the facility in December 2011 (based on the Solar combustion turbine). The PM limit for the Frame 5 combustion turbines is 0.0066 lb./MMBtu and the test result was 0.000203 lb./MMBtu (filterable only) which is 3% of the permit limit. The test results demonstrate a sufficient margin of compliance with the permit limit. In addition, Dominion continuously monitors the SCRs (i.e., chemical reagent use) and oxidation catalysts (i.e., visual inspections) as well as properly maintains the equipment and control devices. Finally, the Frame 5 combustion turbines burn only natural gas as a fuel. When equipment is properly maintained, emissions from natural gas are stable and relatively low.
A recent $PM_{10}$ (Feb 18-19, 2016, based on Solar Combustion Turbine) stack test results was 0.0005 lb./MMBtu (filterable) which is 8% of the permit limit.

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C. Control of Nitrogen Oxides

**COMAR 26.11.09.08G.** - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.

"(**2**) A person who owns or operates a combustion turbine with a capacity factor greater than 15 percent shall meet an hourly average $NO_X$ emission rate of not more than 42 ppm when burning gas or 65 ppm when burning fuel oil (dry volume at 15 percent oxygen) or meet applicable Prevention of Significant Deterioration limits, whichever is more restrictive. "

**40 CFR Part 60, Subpart KKKK** - Standards of Performance for Stationary Combustion Turbines for which Construction, Modification or Reconstruction commenced after February 18, 2005.

**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 ($SO_2$).

**§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 (4-hour rolling average)** |
| 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). |

The GE Frame 5 natural gas-fired combustion turbines are subject to the $NO_X$ LAER requirements listed in the NSR-2005-01 and the $NO_X$ BACT requirements listed in the PSD-2005-1: $NO_X$ emission limit on a 1-hr average for each combustion turbine of 2.5 ppmvd corrected to 15% $O_2$ during baseload operating condition. "Baseload Operating Condition" is defined as the turbine operating condition where the dry low-$NO_X$ combustors function effectively at or about 73% load. **[Reference: PSD Approval #PSD-2005-01 & NSR Approval #NSR-2005-01 issued 6/26/06].**

**Compliance Demonstration:**

The Permittee shall conduct performance test for $NO_X$ in accordance with the methodologies specified in 40 CFR **§60.4340 & §60.4400.**

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

"(**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."

The Permittee shall continuously monitor the $NO_X$ emission of the stack gases using a $NO_X$ Continuous Emission Monitor (CEM) that is certified in accordance 40 CFR Part 60, Appendix B, or Part 75, Appendix A and meet the quality

assurance criteria in 40 CFR Part 60, Appendix F. **[Reference: COMAR 26.11.09.08(B)(2)(b&c)]**

The Permittee shall demonstrate continuous compliance with $NO_x$ in accordance with 40 CFR **§60.4340** as follows:
"(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."
**§60.4345 - What are the requirements for the continuous emission monitoring system equipment, if I choose to use this option?**
"If the option to use a $NO_x$ CEMS is chosen:
(a) Each $NO_x$ diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in appendix B to this part, except the 7-day calibration drift is based on unit operating days, not calendar days. With state approval, Procedure 1 in appendix F to this part is not required. Alternatively, a $NO_x$ diluent CEMS that is installed and certified according to appendix A of part 75 of this chapter is acceptable for use under this subpart. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb./MMBtu basis.
(b) As specified in §60.13(e)(2), during each full unit operating hour, both the $NO_x$ monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the $NO_x$ emission rate for the hour.
(c) Each fuel flow meter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with state approval, fuel flow meters that meet the installation, certification, and quality assurance requirements of appendix D to part 75 of this chapter are acceptable for use under this subpart.
(d) Each watt meter, steam flow meter, and each pressure or temperature measurement device shall be installed, calibrated, maintained, and operated according to manufacturer's instructions.
(e) The owner or operator shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in paragraphs (a), (c), and (d) of this section. For the CEMS and fuel flow meters, the owner or operator may, with state approval, satisfy the requirements of this paragraph by implementing the QA program and plan described in section 1 of appendix B to part 75 of this chapter."
The following records shall be kept on the premises for at least 5 years and shall be made available to the Department upon request:

(a) The amount of natural gas burned in each combustion turbine, million BTU per month;
(b) The amount of chemical reagent usage for $NO_x$ emission control, pounds per month;
(c) All CEM system monitoring data, which are used to demonstrate compliance with the emission limits;
(d) All stack emissions test report;
(e) $NO_x$ emission rates, pounds per million BTU of heat input, for each combustion turbine;
(f) Monthly $NO_x$ emissions from each combustion turbine.
(g) All CEM certifications and calibration results; and
(h) The repairs and maintenance made to the SCR or oxidation catalyst emission control devices or the $NO_x$ CEM system.
**[Reference: MDE Permit to Construct #009-5-0049 & 5-0050 N issued on 8/6/02 (modified on 4/1/05) and NSR Approval #NSR-2005-01 issued 8/6/02]**
The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following:
(i) The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards;
(ii) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;
(iii) The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the validity of emission data;
(iv) Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter;
(v) Quarterly quality assurance activities; and
(vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and
**(vii)** Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation."
CEM System Downtime Reporting Requirement: The Permittee shall report all system downtime, other than downtime generated from routine calibration failures that lasts or is expected to last more than 24 hours to the Department by telephone or email before 10 a.m. of the first regular business day following the breakdown. The system breakdown report shall include the reason, if known, for the breakdown and the estimated period of time that the CEM will be down. The owner or operator of the CEM shall notify the Department by telephone when an out-of-service CEM is back in operation and producing valid data. **[Reference: COMAR 26.11.03.06C]**

D. Control of $SO_X$ Emissions

**§60.4330 - What emission limits must I meet for sulfur dioxide ($SO_2$)?**

(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.....

(1) You must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain $SO_2$ 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 $SO_2$/J (0.060 lb. $SO_2$/MMBtu) heat input**. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.

**Compliance Demonstration:**

The Permittee shall conduct performance test for $SO_X$ in accordance with the methodologies specified in 40 CFR **§60.4415.**

Note: Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement.

**§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.

**§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 $SO_2$/J (0.060 lb. $SO_2$/MMBtu) heat input for units located in continental areas and 180 ng $SO_2$/J (0.42 lb. $SO_2$/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 $SO_2$ /J (0.060 lb. $SO_2$ /MMBtu) heat input for continental areas and has potential sulfur emissions of less than less than 180 ng $SO_2$ /J (0.42 lb. $SO_2$ /MMBtu) heat input for noncontinental areas."

**§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 content value of the gaseous fuel must be determined and recorded once per unit operating day."
Note: The FERC Gas Tariff for Cove Point LNG requires gas delivered to Cove Point to have less than 25 grains of total sulfur per 100 $ft^3$ of natural gas. Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point to comply with this requirement. Monitoring is fulfilled by the tariff.

The Permittee shall keep records of the sulfur content value of the gaseous fuel determined and recorded once per unit operating day. **[Reference: §60.4370 & COMAR 26.11.03.06C]**.
Note: Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement. Daily monitoring is not required due to the tariff.
The Permittee shall maintain records based on the FERC Gas Tariff to comply with this requirement. The Permittee shall report records the Department upon request. **[Reference: COMAR 26.11.03.06C]**

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E. Control of VOC Emissions
The Frame 5 combustion turbines are subject to the VOC LAER requirements listed in the NSR Approval #NSR-2005-01: VOC limit of 0.003 lbs./MMBtu of heat input which shall be assessed by VOC stack emission tests. Each combustion turbine shall only use natural gas for fuel and shall be equipped with a catalytic oxidation system to comply with the VOC emission limit. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06].**

**Compliance Demonstration:**
The Permittee shall perform stack testing to demonstrate compliance with VOC LAER emission limit in the exhaust gases of the stack of each of the combustion turbines once during the term of this permit. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06 & COMAR 26.11.03.06C]**
The Permittee shall calculate monthly VOC emissions from each combustion turbine based on the monthly fuel usage and VOC emission rate, lbs./MMBtu of heat input, collected from the stack emission testing or any other method approved by the Department. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06 & COMAR 26.11.03.06C]**.
The Permittee shall keep records of monthly VOC emissions from each combustion turbine on the premises for at least 5 years and shall be made available to the Department upon request. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06]**
The Permittee shall submit to the Department no later than 30 days following each calendar quarter a quarterly report. The report shall be in a format approved by the Department and shall include monthly VOC emission calculation from each combustion turbine. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06]**

*Rationale*: Dominion completed an initial performance test on the combustion turbines at the facility in December 2008. The VOC limit for the Frame 5 combustion turbines is 0.003 lb./MMBtu and the test result were 0.00126 lb./MMBtu for the 214JA which is 42% of the permit limit and 0.00175 lb./MMBtu for the 214 JB which is 58% of the permit limit. The test results demonstrate a sufficient margin of compliance with the permit limit. Dominion also continuously monitors the oxidation catalysts as part of the CAM (i.e., visual inspections). Finally, the Frame 5 combustion turbines burn only natural gas as a fuel. When equipment is properly maintained, emissions from natural gas are stable and relatively low.
A recent VOC test results (based on March 8, 2017, Frame 5 214JA – S009) is 0.000114 lb./MMBtu which is in compliance with the permit limit.

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F. Control of Carbon Monoxide (CO) Emissions
The Frame 5 combustion turbines are subject to the CO BACT requirements listed in the PSD Approval #PSD-2005-1: CO emission limit is 6 ppmvd corrected to 15% $O_2$ assessed by CO stack emission tests. Each combustion turbine shall be equipped with a CO oxidation catalyst to comply with the CO BACT limit. **[Reference: PSD Approval #PSD-2005-01 issued 6/26/06]**

**Compliance Demonstration:**
The Permittee shall perform stack testing to demonstrate compliance with CO BACT emission limit in the exhaust gases of the stack of each of the combustion turbines once during the term of this permit. During emission testing, each combustion turbine shall operate at 90% or higher of its rated capacity. **[Reference: COMAR 26.11.03.06C & PSD Approval #PSD-2005-01 issued 6/26/06]**
The Permittee shall maintain records of the stack testing results on site for a period of at least 5 years and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**
The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the stack tests to the Department within 60 days of completion of the tests. The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.03.06C & COMAR 26.11.01.07C]**

*Rationale*: Dominion completed an initial performance test on the combustion turbines at the facility in December 2008. The CO limit for the Frame 5 combustion turbines is 6 ppmvd and the test result were 0 ppmvd for the 214JA and 1.01 ppmvd for the 214JB which is 17% of the permit limit. The test results demonstrate a sufficient margin of compliance with the permit limit. Dominion also continuously monitors the oxidation catalysts as part of the CAM (i.e., visual inspections). Finally, the Frame 5 combustion turbines burn only natural gas as a fuel. When equipment is properly maintained, emissions from natural gas are stable and relatively low.
A recent CO test results (based on March 8, 2017, Frame 5 214JA – S009) is 0.930 ppmvd which is 15.5% of the permit limit.

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**Emission Unit: S011 through S017 - WEG Heaters**

**S011 through S017** – (009-5-0051 through 009-5-0057).
Seven (7) Johnston water-ethylene glycol (WEG) heaters, each with a rating of 82.3 MMBtu/hr., each equipped with ultra-low NOx burners (ULNB)
**Controls:** None

The WEG heaters are subject to the requirements of NSPS for small industrial-institutional-commercial steam generating units, Subpart Dc.
**§60.40c -** Applicability and delegation of authority.
(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989, and that has a

maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr.)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr.).

Compliance Status
During the June 7, 2021, full compliance inspection, WEG heaters were not operating. Facility maintains records on natural gas usage, combustion analysis and annual optimization of the units.

On September 21, 2009, thru September 26, 2009, the Permittee conducted stack test on three of the seven WEGs. The results of the stack test are listed below shows compliance with the allowable limits:

| Emission Unit | Pollutant | Test Results | Allowable Limit |
|---|---|---|---|
| S011 | CO | 0.00000000012 lb./MMBtu | 0.03 lb./MMBtu |
| | $NO_X$ | 0.0099 lb./MMBtu | 0.012 lb./MMBtu |
| | $PM_{10}$ | 0.00032 lb./MMBtu | 0.001 lb./MMBtu |
| | VOC | 0.0000000001 lb./MMBtu | 0.002 lb./MMBtu |
| S012 | CO | 0.0000001 lb./MMBtu | 0.03 lb./MMBtu |
| | $NO_X$ | 0.0093 lb./MMBtu | 0.012 lb./MMBtu |
| | $PM_{10}$ | 0.00043 lb./MMBtu | 0.001 lb./MMBtu |
| S012 | VOC | 0.0000001 lb./MMBtu | 0.002 lb./MMBtu |
| S017 | CO | 0.0000001 lb./MMBtu | 0.03 lb./MMBtu |
| | $NO_X$ | 0.0103 lb./MMBtu | 0.012 lb./MMBtu |
| | $PM_{10}$ | 0.0004 lb./MMBtu | 0.001 lb./MMBtu |
| | VOC | 0.0000001 lb./MMBtu | 0.002 lb./MMBtu |

**Applicable Standards and limits:**

A. Control of Visible Emissions
**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. "

**Compliance Demonstration:**
The Permittee shall record any incidences of visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C].**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements.
**[Reference: COMAR 26.11.01.07C]**

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B. Control of Particulate Matter Emissions
The WEG heaters are subject to PM BACT requirements listed in PSD-2005-1: PM emission limit is 0.001 lbs./MMBtu (filterable) of heat input, which shall be assessed by PM stack emission tests. Each vaporization heater shall only use natural gas for fuel to meet PM BACT requirements. **[Reference: PSD Approval #PSD-2005-1].**

**Compliance Demonstration:**
The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. The Permittee shall maintain a record of the date, time and description of maintenance performed on the WEG heaters and shall submit records to the Department upon request. The Permittee shall submit records of maintenance performed on the WEG heaters upon request.
**[Reference: COMAR 26.11.03.06C]**

*Rationale*: Dominion completed an initial performance test on the WEG heaters in September 2009. The PM limit for the heaters is 0.001 lb./MMBtu and the highest test result was 0.00043 lb./MMBtu, which is 43% of the permit limit. The stack test results demonstrate a sufficient margin of compliance with the permit limit. The WEG heaters burn only natural gas as fuel. When equipment is properly maintained, emissions from natural gas are stable and relatively low.

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C. Control of Nitrogen Oxides
**COMAR 26.11.09.08B**. General Requirements and Conditions.
(**1**) Emission Standards and Requirements.
(**a**) A person who owns or operates an installation that causes $NO_x$ emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation. (**c**) Emission Standards in Pounds of $NO_x$ per Million Btu of heat input. – Gas only: 0.2.

The WEG heaters are subject to the $NO_x$ LAER requirements listed in NSR Approval #NSR-2005-01 and the $NO_x$ BACT requirements listed in the PSD

Approval #PSD-2005-01: $NO_x$ emission limit is 0.012 lbs./MMBtu of heat input which shall be assessed by $NO_x$ stack emission tests. Each of the seven-vaporization heater shall only use natural gas for fuel and shall be equipped with ultra-low $NO_x$ burners to comply with the $NO_x$ emission limits. **[Reference: NSR Approval #NSR-2005-01 & PSD Approval #PSD-2005-01 issued 6/26/06].**

**Compliance Demonstration:**
The Permittee shall perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis. The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**
The Permittee shall maintain the following records on-site for a period of at least five years and make available to the Department upon request:
(1) Monthly natural gas usage in millions BTU per month for each WEG heater.
(2) $NO_x$ emission rates, lbs./MMBtu of heat input for each WEG heater.
(3) Monthly $NO_x$ emissions from each WEG heater.
(4) Record of the stack test results.
(5) Record of the date, time and description of maintenance performed on the WEG heaters and shall submit records to the Department upon request
**[Reference: MDE Permit to Construct No. 009-5-0051 to 0057N issued 6/26/06; COMAR 26.11.03.06C]**

*Rationale*: The Permittee completed an initial performance test on the WEG heaters in September 2009. The $NO_x$ limit for the heaters is 0.012 lb./MMBtu and the test ranged from 0.00906 lb./MMBtu to 0.0103 lb./MMBtu, which is 76% to 86% of the permit limit. The Permittee has installed ultra-low $NO_x$ burners (ULNB) on each WEG heater to minimize $NO_x$ emissions. In addition, the WEG heaters burn only natural gas as fuel. When equipment is properly maintained, emissions from natural gas are stable and relatively low.

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D. Control of VOC Emissions
The WEG heaters are subject to the VOC LAER emissions limitations as listed in NSR-2005-01: VOC emission limit is 0.002 lbs./MMBtu of heat input. **Reference: NSR Approval #NSR-2005-01 issued 6/26/06].**

**Compliance Demonstration:**
The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**
The Permittee shall maintain for at least 5 years the following: records of lb./MMBtu VOC emission rates from each WEG heater; and record of the date, time and description of maintenance performed on the WEG heaters and shall

submit records to the Department upon request. **[Reference: COMAR 26.11.03.06C & NSR Approval #NSR-2005-01 issued 6/26/06]**

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E. Control of Carbon Monoxide (CO) Emissions
The WEG heaters are subject to the CO BACT requirements listed in the PSD Approval #PSD-2005-01: CO emission limit is 0.03 lbs./MMBtu of heat input, assessed by CO stack emission tests. Each vaporization heater shall only use natural gas for fuel and shall operate within the appropriate ranges of good operating parameters established during performance tests to meet the CO BACT requirements. **[Reference: PSD Approval #PSD-2005-01 issued 6/26/06]**

**Compliance Demonstration:**
The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**
The Permittee shall maintain a record of the date, time and description of maintenance performed on the WEG heaters and shall submit records to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

*Rationale*: The Permittee completed an initial performance test on the WEG heaters in September 2009. The CO limit for the heaters is 0.03 lb./MMBtu and the test results were zero. The test results demonstrate a sufficient margin of compliance with the permit limit and the WEG heaters burn only natural gas as fuel. When equipment is properly maintained, emissions from natural gas are stable and relatively low.

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F. NSPS for PM and SOx Emissions
**40 CFR Part 60** Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
**§60.40c** - Applicability and delegation of authority.
(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h). Since the heaters are fired on natural gas only, the record keeping and reporting requirements **§60.48c** apply.

**Compliance Demonstration:**
**§60.48c** - Reporting and recordkeeping requirements.
"(g)(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only **natural gas**, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the $SO_2$ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to **record and maintain records of the amount of each fuel combusted during each calendar month.**"

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**Emission Unit: S018 – Heaters**

**S018** – (009-5-0058).
One (1) emergency vent heater rated at 1.3 MMBtu/hr. equipped with low-$NO_x$ burners (LNB).
**Controls:** None

Compliance Status
The facility maintains on site records of fuel usage, $NO_x$ and VOC emissions and report excess emissions and exceedances.

**Applicable Standards and limits:**

A. Control of Visible Emissions
**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. "

**Compliance Demonstration:**
The Permittee shall keep record of incidences of visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C]**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

B. Control of Particulate Matter Emissions
The emergency vent heater is subject to the PM BACT requirements listed in the PSD Approval #PSD-2005-01: PM emission limit of 0.008 lbs./MMBtu (filterable) of heat input. Compliance to be achieved by use of natural gas as fuel and good combustion practices. **[Reference: PSD Approval #PSD-2005-01 issued 6/26/06)]**

**Compliance Demonstration:**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

C. Control of Nitrogen Oxides
**COMAR 26.11.09.08B**. General Requirements and Conditions.
(**1**) Emission Standards and Requirements.
(**a**) A person who owns or operates an installation that causes $NO_x$ emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation. (**c**) Emission Standards in Pounds of $NO_x$ per Million Btu of heat input. – Gas only: 0.2. "

The emergency vent heater must also meet the BACT and LAER requirements as set forth in PSD-2005-01 and NSR-2005-01; $NO_x$ emission limit of 0.036 lbs./MMBtu of heat input on a 3-hour average basis. Compliance to be achieved by use of natural gas as fuel, low $NO_x$ burner and good combustion practices **[Reference: NSR Approval #NSR-2005-01 & PSD Approval #PSD-2005-01 issued 6/26/06)]**

**Compliance Demonstration:**
The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. **[Reference: COMAR 26.11.03.06C]**
The Permittee shall maintain the following records on-site for a period of at least five years and make available to the Department upon request:
(1) Monthly natural gas usage in millions BTU per month for the emergency vent heater.
(2) $NO_x$ emission rates, lbs./MMBtu of heat input for the emergency vent heater.
(3) Record of stack test results
(4) Record of the date, time and description of maintenance performed on the emergency vent heater and shall submit records to the Department upon request

**[Reference: COMAR 26.11.03.06C; MDE Permit to Construct No. 009-5-0058N issued 6/26/06 and NSR Approval #NSR-2005-01 issued 06/26/06]**

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D. Control of VOC Emissions
The emergency vent heater is subject to the VOC LAER emissions limit listed in the NSR Approval #NSR-2005-01: VOC emissions limit of 0.0054 lbs./MMBtu on a 3-hour average basis. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06)].**

**Compliance Demonstration:**
The Permittee shall maintain the following records on-site for a period of at least five years and make available to the Department upon request:
(1) Monthly VOC emissions from the emergency vent heater based on the monthly natural gas usage.
(2) VOC emission rates, lbs./MMBtu of heat input for the emergency vent heater based on vendor data or any other method approved by the Department.
**[Reference: MDE Permit to Construct #009-5-0058N issued 06/26/06 and NSR Approval #NSR-2005-01 issued 06/26/06]**

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E. Control of Carbon Monoxide Emissions
The emergency vent heater is subject to the CO BACT requirements listed in the PSD Approval #PSD-2005-01: CO emissions limit of 0.082 lbs./MMBtu. Compliance to be achieved by use of natural gas as fuel and good combustion practices. **[Reference: PSD Approval #PSD-2005-01 issued 6/26/06)]**

**Compliance Demonstration:**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements.
**[Reference: COMAR 26.11.01.07C]**

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**Emission Unit: S019 & S020 – Emergency Generators**

**S019 & S020** – (009-9-0071 & 009-9-0072).
Two (2) natural gas-fired emergency generators, each with a rating of 1175 hp (825 kW).
**Controls:** None

These generators are not subject to 40 CFR Part 60 Subpart IIII - New Source Performance Standards (**NSPS**) under 40 CFR Part 60 Subpart IIII for Stationary

Compression Ignition Internal Combustion Engines because they are natural gas fired generators which are spark ignited.
These generators also are not subject to 40 CFR Part 60 Subpart JJJJ – New Source Performance Standards (**NSPS**) for Stationary Spark Ignition Internal Combustion Engines since they were manufactured prior to January 1, 2008, per 40 CFR 60.4230(a)(4)(ii). They were manufactured in August of 2007.
**§60.4230(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: **(ii)** on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP.

They are also not subject to the requirements of 40 CFR Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants (**NESHAP**) for Stationary Reciprocating Internal Combustion Engines since they were manufactured after June 12, 2006.

Compliance Status
The facility maintains on site records of natural gas usage and unit run log of hours of operation and report excess emissions and exceedances.

## Applicable Standards and limits:

A. Control of Visible Emissions
COMAR 26.11.09.05 - Visible Emissions.
**E**. 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.
(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. "

**Compliance Demonstration:**
The Permittee shall keep records of incidences of visible emissions and corrective actions. **[Reference: COMAR 26.11.03.06C]**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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B. Control of Particulate Matter Emissions
The emergency generators are subject to PM BACT emission standards as listed in PSD-2005-01: PM emissions limit of 0.12 lb./kW-hr (filterable) to be achieved by natural gas only and a limit on operations to no more than 200 hours each during any consecutive 12-month period. **[Reference: PSD Approval #PSD-2005-1 issued on 6/26/06)].**

**Compliance Demonstration:**
The Permittee shall maintain records of the hours of operation for the generators on site and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C & PSD Approval #PSD-2005-01 issued 6/26/06]**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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C. Control of Nitrogen Oxides
The Permittee is subject to the $NO_x$ BACT and LAER emission standards listed in the PSD-2005-01 and NSR-2005-01: $NO_x$ emission limit of 2.0 g/bhp-hr. (6.3 lb./kW-hr) on a 3-hour average basis. Compliance achieved by good combustion practices; proper operation and maintenance plan; and a limit on operations of no more than 200 hours each during any consecutive 12-month period. **[Reference: PSD Approval #PSD-2005-1 & NSR Approval #NSR-2005-01 issued on 6/26/06)].**

**Compliance Demonstration:**
The Permittee shall calculate monthly $NO_x$ emissions from the natural gas fired emergency generators based on the monthly natural gas usage (or monthly operating hours) and the $NO_x$ emission rate, pounds per hour, based upon

vendor guarantees. **[Reference: NSR Approval NSR-2005-01 issued 6/26/2006]**
The Permittee shall maintain records of the following for each emergency generator: monthly natural gas usage or hours of operation; $NO_x$ emission rates, and annual operating hours on site for at least five years and make available to the Department upon request. **[Reference: NSR Approval #NSR-2005-01 & PSD Approval #PSD-2005-01 issued 6/26/06 & COMAR 26.11.03.06C]**

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D. Control of VOC Emissions
The emergency generators are subject to VOC LAER limit as listed in NSR Approval #NSR-2005-01: VOC emissions limit of 2.35 lb./kW-hr on a 3-hour average basis. Each generator shall not operate more than 200 hours for any 12-month period, rolling monthly. **[Reference: NSR Approval #NSR-2005-01 issued on 6/26/06)].**

**Compliance Demonstration:**
The Permittee shall calculate monthly VOC emissions from the natural gas fired emergency generators based on the monthly natural gas usage (or monthly operating hours) and the VOC emission rate, pounds per hour, based upon vendor guarantees. **[Reference: NSR Approval NSR-2005-01 issued 6/26/2006]**
The Permit shall maintain records of monthly natural gas usage in million Btu per month, or monthly operating hours, for each natural gas fired emergency generator on site and make available to the Department upon request. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06 & COMAR 26.11.03.06C]**

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E. Control of Carbon Monoxide Emissions
The emergency generators are subject to the CO BACT requirements listed in the PSD Approval #PSD-2005-01: CO emissions limit of 5.45 lb./kW-hr to be achieved by natural gas only and a limit on operations to no more than 200 hours each during any consecutive 12-month period. **[Reference: PSD Approval #PSD-2005-01 issued on 6/26/06)].**

**Compliance Demonstration:**
The Permittee shall maintain records of the hours of operation for the generators on site and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C & PSD Approval #PSD-2005-01 issued 6/26/06]**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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**Emission Unit: S001 through S020, FL1-FL6: Premise-wide**

**Reactivation**
**S001, S002, & S003** – (009-5-0012, 009-5-0013, & 009-5-0014 formerly 009-9-0032 to 9-0034).
Three (3) natural gas-fired, simple-cycle General Electric Frame 3 combustion turbines (model MS3142), each with a nominal rating of 135.6 MMBTU/hr. – used to generate electricity.

**S004** – (009-5-0016 through 009-5-0025).
Ten (10) T-Thermal (model HV-12049) natural gas-fired submerged combustion vaporizers (SCV), each with a rating of 72 MMBtu/hr., equipped with a water injection system.: – Used to vaporize LNG

**S005** – (009-5-0015).
One (1) Black, Sivalls & Bryson (model 2500 SGIH) natural gas-fired LNG emergency vent heater rated at 2.32 MM BTU/hr.: – Used, under emergency conditions, to heat cold natural gas vapor for venting to the atmosphere

**S006** – (009-9-0022).
One (1) HEATEC (model HCI-6010-50G) natural gas-fired Liquefaction heater rated at 8.9 MM BTU/hr. – Used to supply heat for regenerating zeolite molecular sieve used for cleaning pipeline gas

**S007 & S008** – (009-5-0032 & 009-5-0033).
Two (2) Johnston Boiler Co. (PFTA-300-4-G) natural gas-fired packaged fire tube hot water boilers, each with a rating of 12.3 MMBTU/hr. and equipped with low-$NO_x$ burner: – Used to heat water-glycol mixture to enable heat exchangers to heat natural gas for use at the facility.

**FL1-FL6** – (009-0021-9-0022)
Liquefaction equipment components (LEC) – Import Facility.

**Cove Point Expansion (CPX)**
**S009 & S010** – (009-5-0049 & 009-5-0050).
Two (2) General Electric Frame 5 Turbine natural gas-fired simple-cycle with a nominal rating of 302 MMBtu/hr. equipped with dry-low $NO_x$ combustion (DLN), SCR and oxidation catalyst (OC)

**S011 through S017** – (009-5-0051 through 009-5-0057).
Seven (7) Johnston water-ethylene glycol (WEG) heaters, each with a rating of 82.3 MMBtu/hr., each equipped with ultra-low NOx burners (ULNB)

**S018** – (009-5-0058).
One (1) emergency vent heater rated at 1.3 MMBtu/hr. equipped with low-NOx burners (LNB).

**S019 & S020** – (009-9-0071 & 009-9-0072).
Two (2) natural gas-fired emergency generators, each with a rating of 1175 hp (825 kW).

**Applicable Standards and limits:**

A. Control of VOC Emissions
The VOC emissions are limited to 48.7 tons for any 12-month period rolling monthly for emission units associated with the 2002 re-activation project and the CPX expansion. The VOC emissions are limited to 33.8 tons for any 12-month period, rolling monthly, for the re-activation sources only. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06 & MDE Permit to Construct Number 009-9-0032 to 9-0034 issued on 8/6/02 (modified on 4/1/05) & MDE Permit to Construct Number 009-0021-5-0032 & 009-0021-5-0033 issued on 6/21/12)].**

**Compliance Demonstration:**
The Permit shall maintain records of premise-wide VOC emissions (from combustion turbines, vaporizers) for any 12-month period, rolling monthly on site for at least 5 years and make available to the Department upon request. **[Reference: NSR Approval #NSR-2005-01 issued 6/26/06]**
The Permittee shall submit to the Department no later than 30 days following each calendar quarter a quarterly report. The report shall be in a format approved by the Department and shall include monthly and rolling 12-month VOC emission calculated from each combustion turbine, each vaporizer, each emergency vent heater and each emergency generator. **[Reference: COMAR 26.11.03.06C & NSR Approval #NSR-2005-01 issued 6/26/06]**

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B. Control of Nitrogen Oxides
The NOx emissions are limited to 337.6 tons for any 12-month period rolling monthly for emission units associated with 2002 re-activation project and the CPX expansion. **[Reference: NSR Approval #NSR-2005-01 issued on 6/26/06)].**

**Compliance Demonstration:**
The Permittee shall maintain records for the Expansion project premise-wide NOx emissions for any 12-month period, rolling monthly on site and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

**For EU-S001 through S008, FL1-FFL6 only**
The NSR premises-wide NOx emissions are limited to 278.8 tons for any 12-month period rolling monthly for emission units associated with 2002 re-activation project. **[Reference: NSR Approval #NSR-2002-01 issued on 8/6/02)].**

**Compliance Demonstration:**
The Permittee shall maintain records of premise-wide NOx emissions for any 12-month period, rolling monthly on site and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

The Permittee shall maintain monthly natural gas usage, million BTU per month, and monthly NOx emissions from the liquefaction heater and each boiler on site for at least 5 years and shall make it available to the Department upon request. **[PSD Approval #PSD-2002-1 and NSR Approval #NSR-2002-01 issued on 8/6/02]**

The Permittee shall submit to the Department not later than 30 days following each calendar quarter a quarterly summary report. The report shall be in a format approved by the Department and shall include the following:
(a) Expansion project NOx emissions for each calendar month and each rolling 12-month period for the previous calendar quarter.
(b) The cause, time periods, except start-up and shut-down phases, and magnitude of all emissions which exceed the applicable standards.
(c) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned for the following emission units: S001 thru S004, S009 & S010, and S011 thru S017.
(d) Other information required by the Department that is determined to be necessary to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this requirement. **[Reference: COMAR 26.11.03.06C & NSR Approval #NSR-2005-01 issued 6/26/06]**

**Emission Unit: S021 – Combustion Turbine**

**S021** – (009-5-0065)
One (1) natural gas-fired, Solar Titan turbine with nominal rating of 137 MMBtu/hr. equipped with DLN combustors, SCR, and oxidation catalyst.
**Controls:** DLN, SCR and OC

The Solar Titan combustion turbine is subject to NSPS for Combustion Turbines Subpart KKKK:
**§60.4305** - Does this subpart apply to my stationary combustion turbine?
"(a) If you are the owner or operator of a stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005, your turbine is subject to this subpart."

Stationary combustion turbines subject to Subpart KKKK are exempt from the requirements of Subpart GG.

The Solar Titan combustion turbine is not subject to the NESHAP for Combustion Turbines Subpart YYYY:
**§63.6090** - What parts of my plant does this subpart cover?
"This subpart applies to each affected source.
(a) *Affected source*. An affected source is any existing, new, or reconstructed stationary combustion turbine located at a major source of HAP emissions."

The Cove Point terminal is not a major source of HAP emissions.

Compliance Status
During June 7, 2021, full compliance inspection, S021 was operating at 7.3 MW.

On January 26-27, 2021, the Permittee conducted stack testing on S021 (Solar Turbine) for CO, $NO_X$ and $PM_{10}$. The test results are as follows:

| Emission Unit | Pollutant | Test Results | Allowable Limit |
|---|---|---|---|
| S021 | $PM_{10}$ (filterable & condensable) | 0.000554 lb./MMBtu | 0.0066 lb./MMBtu |
| | CO | 0.166 ppm @ 15% $O_2$ | 6.0 ppm @ 15% $O_2$ |
| | VOC | 0.031 lb./hr. | 0.7 lb./hr. |

On February 18-19, 2016, the Permittee conducted stack testing on S021 (Solar Turbine) for CO, $NO_X$ and $PM_{10}$. The test results are as follows:

| Emission Unit | Pollutant | Test Results | Allowable Limit |
|---|---|---|---|
| S021 | $PM_{10}$ (filterable & | 0.00170 lb./MMBtu | 0.0066 lb./MMBtu |

| | | | |
|---|---|---|---|
| | condensable) | | |
| | CO | 0.0 ppm @ 15% $O_2$ | 6.0 ppm @ 15% $O_2$ |
| | VOC | 0.0176 lb./hr. | 0.7 lb./hr. |

The unit was running at 14 MW. The testing was conducted to show compliance with PSD and NSR permit requirements

On February 24, 2009, the Permittee conducted stack test on the Solar combustion turbine for CO, VOC, $NO_X$, and $PM_{10}$. The test results are as follows:

| Emission Unit | Pollutant | Test Results | Allowable Limit |
|---|---|---|---|
| S021 | CO | 0.00 ppm | 6.0 ppm @ 15% $O_2$ |
| | $NO_X$ | 0.76 ppm @ 15% $O_2$ | 5.0 ppm |
| | $PM_{10}$ | 0.0077 lb./MMBtu | 0.0066 lb./MMBtu |
| | VOC | 0.01 lb./MMBtu | 0.7 lb./MMBtu |
| | | | |
| 12/7/2011 – 12/8/2011 stack testing results for $PM_{10}$ | | | |
| S021 | $PM_{10}$ | 0.0037 lb./MMBtu | 0.0066 lb./MMBtu |

The $PM_{10}$ emissions exceeded the $PM_{10}$ allowable limit of 0.0066 lb./MMBtu. On December 7, 2011, to December 8, 2011, $PM_{10}$ stack test was performed on the Solar combustion turbine and the data showed compliance with the PM BACT limit

**Applicable Standards and limits:**

A. Control of Visible Emissions
**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. "

**Compliance Demonstration:**
The Permittee shall record any incidences of visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C].**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

B. Control of Particulate Matter Emissions
The Solar combustion turbine is subject to $PM_{10}$ BACT requirements listed in the CPCN Case No. 9055 Licensing Conditions: $PM_{10}$ emission limit of 0.0066 lbs./MMBtu on a 3-hour average basis (filterable and condensable) to be achieved by exclusive use of pipeline quality, low sulfur natural gas. **[Reference: CPCN Case No. 9055, issued 8/15/06].**

**Compliance Demonstration:**
The Permittee shall perform stack testing to demonstrate compliance with PM emission limit in the exhaust gases of the stack of at least one of the combustion turbines at the import facility once during the term of this permit. During the stack emission testing, the combustion turbine shall be operating at 90% or higher of its rated capacity. **[Reference: CPCN Case No. 9055 issued 8/15/06 & COMAR 26.11.03.06C]**
The Permittee shall perform routine and preventative maintenance in accordance with manufacturer's specifications. The Permittee shall maintain the following on site for at least 5 years: records of stack testing results; record of the date, time and description of maintenance performed on the combustion turbines and shall submit records to the Department upon request. The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the stack tests to the Department within 60 days of completion of the tests. **[Reference: COMAR 26.11.03.06C]**

*Rationale*: Dominion completed an initial performance test on the combustion turbine at the facility in December 2011. The PM limit for the Solar combustion turbine is 0.0066 lb./MMBtu and the test result was 0.00371 lb./MMBtu (filterable and condensable) which is 56% of the permit limit. The test results demonstrate a sufficient margin of compliance with the permit limit. In addition, Dominion continuously monitors the SCR (i.e.chemical reagent use) and oxidation catalyst (i.e. visual insections) as well as properly maintains the equipment and controls devices. Finally, Solar combustion turbine burns only natural gas as a fuel. When equipment is properly maintained, emissions from natural gas are stable and relatively low.

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C. Control of Nitrogen Oxides
**COMAR 26.11.09.08G.** - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.
"(**2**) A person who owns or operates a combustion turbine with a capacity factor greater than 15 percent shall meet an hourly average $NO_x$ emission rate of not more than 42 ppm when burning gas or 65 ppm when burning fuel oil (dry

volume at 15 percent oxygen) or meet applicable Prevention of Significant Deterioration limits, whichever is more restrictive. "

**40 CFR Part 60, Subpart KKKK** - Standards of Performance for Stationary Combustion Turbines for which Construction, Modification or Reconstruction commenced after February 18, 2005.

**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 ($SO_2$).

**§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 (4-hour rolling average)** |
| 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). |

The Solar combustion turbine is subject to the $NO_X$ LAER requirements and the $NO_X$ BACT requirements listed in the CPCN Case No. 9055: $NO_X$ emission limit of 5.0 ppmvd corrected to 15% oxygen on a 1-hour average basis during base-load operating conditions to be achieved by exclusive use of pipeline quality, low sulfur natural gas; low-$NO_X$ combustion design and operation of selective catalytic reduction system.

Emissions are subject to startup and shutdown conditions as listed in the same permit: $NO_X$ emissions are limited to 12.8 tons for any 12-month period rolling monthly for emission units associated with the ASU project

**[Reference: CPCN Case No. 9055 issued 8/15/06].**

"*Baseload operating conditions" is defined as the turbine operating condition where the dry low-$NO_X$ combustors functions effectively at or above 50% load.*

**Compliance Demonstration:**

The Permittee shall conduct performance test for $NO_X$ in accordance with the methodologies specified in 40 CFR **§60.4340 & §60.4400.**

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

"(**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."

The Permittee shall continuously monitor the $NO_X$ emission of the stack gases using a $NO_X$ Continuous Emission Monitor (CEM) that is certified in accordance 40 CFR Part 60, Appendix B, or Part 75, Appendix A and meet the quality

assurance criteria in 40 CFR Part 60, Appendix F. **[Reference: COMAR 26.11.09.08(B)(2)(b&c)]**

The Permittee shall demonstrate continuous compliance with NOx in accordance with 40 CFR **§60.4340** as follows:
"(**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."
The Permittee shall maintain the following records on site for at least 5 years and make available to the Department upon request:

(a) Total NOx emissions (tons) for each calendar month and each rolling 12-month period.
(b) Monthly natural gas usage in MMBtu per month and power output in kW/hour.
(c) NOx emission rates, lb./MMBtu of heat input.
(d) Monthly chemical reagent usage for the SCR system, lbs./month.
(e) All CEM system monitoring data, which are used to demonstrate compliance with the emission limits;
(f) All CEM certifications and calibration results; and
(g) The repairs and maintenance made to the SCR or oxidation catalyst emission control devices or the NOx CEM system.

**[Reference: CPCN Case No. 9055 issued 8/15/06]**
The Permittee shall submit a quarterly summary report to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following:
(i) The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards;
(ii) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;
(iii) The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the validity of emission data;
(iv) Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter;
(v) Quarterly quality assurance activities; and
(vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and
(vii)Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation."
**[Reference: COMAR 26.11.03.06C]**

CEM System Downtime Reporting Requirement: The Permittee shall report all system downtime, other than downtime generated from routine calibration failures that lasts or is expected to last more than 24 hours to the Department by telephone or email before 10 a.m. of the first regular business day following the breakdown. The system breakdown report shall include the reason, if known, for the breakdown and the estimated period of time that the CEM will be down. The owner or operator of the CEM shall notify the Department by telephone when an out-of-service CEM is back in operation and producing valid data. **[Reference: COMAR 26.11.03.06C]**

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D. Control of $SO_X$ Emissions

**§60.4330 - What emission limits must I meet for sulfur dioxide ($SO_2$)?**

"(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 $SO_2$ 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 $SO_2$/J (0.060 lb. $SO_2$/MMBtu) heat input**. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement. "

**Compliance Demonstration:**

The Permittee shall conduct performance test for $SO_X$ in accordance with the methodologies specified in 40 CFR **§60.4415.**

Note: Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement. Performance tests are satisfied by the tariff.

**§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.

**§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 $SO_2$/J (0.060 lb. $SO_2$/MMBtu) heat input for units located in continental areas and 180 ng $SO_2$/J (0.42 lb. $SO_2$/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 $SO_2$ /J (0.060 lb. $SO_2$ /MMBtu) heat input for continental areas and has potential sulfur emissions of less than less than 180 ng $SO_2$ /J (0.42 lb. $SO_2$ /MMBtu) heat input for noncontinental areas."

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

Note: The FERC Gas Tariff for Cove Point LNG requires gas delivered to Cove Point Terminal to have less than 25 grains of total sulfur per 100 $ft^3$ of natural gas. Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement. Monitoring is fulfilled by the tariff.
The Permittee shall keep records of the sulfur content value of the gaseous fuel determined and recorded once per unit operating day. **[Reference: §60.4370 & COMAR 26.11.03.06C]**.
Note: Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement. Daily monitoring is not required due to the tariff.
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

E. Control of VOC Emissions

The Solar combustion turbine is subject to the VOC LAER requirements listed in the CPCN Case No. 9055: VOC emission limit of 0.7 lb./hr. on a 3-hour average basis at loads of 75% or greater and 0.6 lbs./hr. on a 3-hour average basis at loads less than 75%.

Emissions are subject to startup and shutdown conditions as listed in the same permit: VOC emissions are limited to 3.7 tons for any 12-month period rolling monthly for emission units associated with the ASU project. **[Reference: CPCN Case No. 9055 issued 8/15/06].**

**Compliance Demonstration:**

The Permittee shall perform stack testing to demonstrate compliance with VOC emission limit in the exhaust gases of the stack of the combustion turbine once during the term of this permit. During the stack emission testing, the combustion turbine shall be operating at 90% or higher of its rated capacity. **[Reference: CPCN Case No. 9055 issued 8/15/06 & COMAR 26.11.03.06C]**

The Permittee shall calculate monthly VOC emissions from each combustion turbine based on the monthly fuel usage and VOC emission rate, lbs./MMBtu of heat input, collected from the stack emission testing or any other method approved by the Department. The Permittee shall maintain the following records on site for at least 5 years and make available to the Department upon request: monthly VOC emissions from the combustion turbine and stack testing results. The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the stack tests to the Department within 60 days of completion of the tests. **[Reference: COMAR 26.11.03.06C].**

*Rationale*: The Permittee completed an initial performance test on the combustion turbine at the facility in February 2009. The VOC limit for the Solar combustion turbine is 0.6 lb/hr at less than 75% capacity abd 0.7 lb/hr at 75% or greater capacity. The test results was 0.1 lb/hr, which is at 17% of the 0.6 lb./hr. permit limit. The test results demonstrate a sufficient margin of compliance with the permit limit. In addition, the Permittee continuously monitors the oxidation catalyst as part of CAM. Finally, Solar combustion turbine burns only natural gas as a fuel. When equipment is properly maintained, emissions from natural gas are stable and relatively low.

A recent VOC (Feb 18-19, 2016, based on Solar Combustion Turbine) stack test results was 0.00176 lb./hr. which is 2.5% of the permit limit.

F. Control of Carbon Monoxide (CO) Emissions
The Solar combustion turbine is subject to the CO BACT requirements listed in the CPCN Case No. 9055 Licensing Conditions: CO emission limit of 6.0 ppmvd corrected to 15% oxygen on a 3-hour average basis to be achieved by use of good combustion practices and operation of oxidation catalyst system. **[Reference: CPCN Case No. 9055 issued 8/15/06]**

**Compliance Demonstration:**
The Permittee shall perform stack testing to demonstrate compliance with CO BACT emission limit in the exhaust gases of the stack of the combustion turbine once during the term of this permit. During the stack emission testing, the combustion turbine shall be operating at 90% or higher of its rated capacity. **[Reference: CPCN Case No. 9055 issued 8/15/06 & COMAR 26.11.05.06C]**
The Permittee shall maintain records of stack testing results on site for at least 5 years and make available to the Department upon request. The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the stack tests to the Department within 60 days of completion of the tests. **[Reference: COMAR 26.11.03.06C].**

*Rationale*: The Permittee completed an initial performance test on the combustion turbine at the facility in February 2009. The CO limit for the Solar combustion turbine is 6 ppmvd and the test result was zero. In addition, the Permittee continuously monitors the oxidation catalyst as part of CAM (i.e. visual inspections). Finally, Solar combustion turbine burns only natural gas as a fuel. When equipment is properly maintained, emissions from natural gas are stable and relatively low.
A recent CO (Feb 18-19, 2016, based on Solar Combustion Turbine) stack test results was 0.00 which is in compliance with the permit limit.

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**Emission Unit: S022 – Heater**

**S022** – (N/A).
One (1) natural gas-fired process heater equipped with LNB rated at 0.93 MMBtu/hr.
**Controls:** None

Compliance Status
The facility maintains on site records of fuel usage, $NO_x$ and VOC emissions and report excess emissions and exceedances.

**Applicable Standards and limits:**

A. Control of Visible Emissions
**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. "

**Compliance Demonstration:**
The Permittee shall maintain records of any incidences of visible emissions and related corrective actions taken. **[Reference: COMAR 26.11.03.06C].**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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B. Control of Particulate Matter Emissions
The process heater is subject to the $PM_{10}$ BACT requirements listed in CPCN Case No. 9055 Licensing Conditions: $PM_{10}$ emission limit of 0.0074 lb./MMBtu on a 3-hour average basis (filterable and condensable) to be achieved by exclusive use of pipeline quality and low sulfur natural gas. **[Reference: CPCN Case No. 9055 issued 8/15/06]**

**Compliance Demonstration:**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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C. Control of Nitrogen Oxides
The process heater is subject to the $NO_x$ BACT requirement and the $NO_x$ LAER requirements listed in the CPCN Case No. 9055 Licensing Conditions: $NO_x$ emission limit of 17 ppmvd corrected to 3% oxygen on a 3-hour average basis to be achieved by the exclusive use of natural gas, good combustion practices and dry low-$NO_x$ burners. **[Reference: CPCN Case No. 9055 issued 8/15/06]**

**Compliance Demonstration:**
The Permittee shall maintain records of the following on site for at least 5 years and make available to the Department upon request: monthly natural gas usage, million BTU per month, and $NO_x$ emission rates, lbs./MMBtu of heat input.
**[Reference: CPCN Case No. 9055 issued 8/15/06]**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements.
**[Reference: COMAR 26.11.01.07C]**

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D. Control of VOC Emissions
The process heater is subject to the VOC LAER requirements listed in the CPCN Case No. 9055 Licensing Conditions: VOC emission limit of 143 ppmvd corrected to 3% oxygen on a 3-hour average basis. **[Reference: CPCN Case No. 9055 issued 8/15/06]**

**Compliance Demonstration:**
The Permit shall maintain records of the following on site for at least 5 years and make available to the Department upon request: monthly natural gas usage, million BTU per month, and VOC emission rates, lbs./MMBtu of heat input.
**[Reference: CPCN Case No. 9055 issued 8/15/06]**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements.
**[Reference: COMAR 26.11.01.07C]**

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E. Control of Carbon Monoxide Emissions
The process heater is subject to the CO BACT requirements listed in the CPCN Case No. 9055 Licensing Conditions: CO emission limit of 143 ppmvd corrected to 3% oxygen on a 3-hour average basis to be achieved by good combustion practices. **[Reference: CPCN Case No. 9055 issued 8/15/06]**

**Compliance Demonstration:**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements.
**[Reference: COMAR 26.11.01.07C]**

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**Emission Unit: S023 – Emergency Engine**

**S023** – (009-9-0082)
One (1) natural gas-fired Caterpillar black-start emergency generator rated at 1085-hp (920-kW).
**Controls:** None

This generator is not subject to 40 CFR Part 60 Subpart IIII - New Source Performance Standards (**NSPS**) under 40 CFR Part 60 Subpart IIII for Stationary Compression Ignition Internal Combustion Engines because it is a natural gas fired generator which is spark ignited.
This generator also is not subject to 40 CFR Part 60 Subpart JJJJ – New Source Performance Standards (**NSPS**) for Stationary Spark Ignition Internal Combustion Engines since it was manufactured prior to January 1, 2008, per 40 CFR 60.4230(a)(4)(ii). This generator was manufactured in March of 2007.

**§60.4230(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: **(ii)** on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP.

This generator is also not subject to the requirements of 40 CFR Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants (**NESHAP**) for Stationary Reciprocating Internal Combustion Engines since it was manufactured after June 12, 2006.

Compliance Status
The facility maintains on site records of natural gas usage and unit run log of hours of operation and report excess emissions and exceedances.

**Applicable Standards and limits:**

A. Control of Visible Emissions
**COMAR 26.11.09.05** - Visible Emissions.
**E**. 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.
(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. "

**Compliance Demonstration:**
The Permittee shall keep records of incidences of visible emissions and corrective actions. **[Reference: COMAR 26.11.03.06C]**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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B. Control of Particulate Matter Emissions
The engine is subject to $PM_{10}$ BACT emission standards listed in the CPCN Case No. 9055; $PM_{10}$ emissions limit of 0.0099 lbs./MMBtu on a 3-hour average basis to be achieved by exclusive use of pipeline quality, low sulfur natural gas and a limit on operations of no more than 200 hours during any consecutive 12-month period. **[Reference: CPCN Case No. 9055, issued 8/15/06].**

**Compliance Demonstration:**
The Permittee shall maintain the following records on site and make available to the Department upon request: .monthly fuel usage rates in MMBtu per month and hours of operation for the generator **[Reference: CPCN Case No. 9055 issued 8/15/06]**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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C. Control of Nitrogen Oxides
The engine is subject to $NO_x$ BACT and LAER emission standards listed in the CPCN Case No. 9055: $NO_x$ emission limit of 2.0 g/bhp-hr. on a 3-hour average

basis to be achieved by good combustion practices, proper operation and maintenance plan and a limit on operations of no more than 200 hours during any consecutive 12-month period. **[Reference: CPCN Case No. 9055, issued 8/15/06].**

**Compliance Demonstration:**
The Permittee shall maintain records of the following: monthly fuel usage rates, million BTU per month, and number of hours each generator operates per month. **[Reference: CPCN Case No. 9055 issued 8/15/06 & COMAR 26.11.09.08G(1)(c&e)]**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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D. Control of VOC Emissions
The engine is subject to VOC LAER emission standards listed in the CPCN Case No. 9055; Licensing Conditions: VOC emission limit of 0.6 g/bhp-hr. on a 3-hour average basis. **[Reference: CPCN Case No. 9055, issued 8/15/06].**

**Compliance Demonstration:**
The Permittee shall maintain the following records on site and make available to the Department upon request: .monthly fuel usage rates in MMBtu per month and hours of operation for the generator. **[Reference: CPCN Case No. 9055 issued 8/15/06]**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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E. Control of Carbon Monoxide Emissions
The engine is subject to CO BACT emission standards listed in the CPCN Case No.9055; Licensing Conditions: CO emission limit of 1.5 g/bhp-hr. on a 3-hour average basis to be achieved by good combustion practices, proper operation and maintenance plan and a limit on operations of no more than 200 hours during any consecutive 12-month period. **[Reference: CPCN Case No. 9055, issued 8/15/06].**

**Compliance Demonstration:**
The Permittee shall maintain the following records on site and make available to the Department upon request: .monthly fuel usage rates in MMBtu per month and hours of operation for the generator. **[Reference: CPCN Case No. 9055 issued 8/15/06]**

The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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**Emission Unit: S021 through S023: Associated with the ASU Project**

**S021** – (009-5-0065)
One (1) natural gas-fired, Solar Titan turbine with nominal rating of 137 MMBtu/hr. equipped with DLN combustors, SCR, and oxidation catalyst.

**S022** – (N/A).
One (1) natural gas-fired process heater equipped with LNB rated at 0.93 MMBtu/hr.

**S023** – (009-9-0082)
One (1) natural gas-fired Caterpillar black-start emergency generator rated at 1085-hp (920-kW).

**Applicable Standards and limits:**

A. Control of VOC Emissions
The VOC emissions are limited to 3.7 tons for any 12-month period rolling monthly for emissions unit associated with the ASU project. **[Reference: CPCN Case No. 9055 issued 8/15/06]**

**Compliance Demonstration:**
The Permit shall maintain records of VOC emissions for any 12-month period, rolling monthly on site for at least 5 years and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**
The Permittee shall submit to the Department no later than 30 days following each calendar quarter a quarterly report. The report shall be in a format approved by the Department and shall include monthly and rolling 12-month VOC emission calculations. **[Reference: COMAR 26.11.03.06C]**

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B. Control of Nitrogen Oxides
The $NO_x$ emissions are limited to 12.8 tons for any 12-month period rolling monthly for emission units associated with ASU project. **[Reference: CPCN Case No. 9055 issued 8/15/06].**

**Compliance Demonstration:**
The Permittee shall maintain records of $NO_x$ emissions for any 12-month period, rolling monthly on site for at least 5 years and make available to the Department upon request. The Permittee shall submit to the Department not later than 30 days following each calendar quarter a quarterly summary report. The report shall be in a format approved by the Department and shall include monthly and rolling 12-month $NO_x$ emission calculations. **[Reference: COMAR 26.11.03.06C]**

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**Emission Unit: S024 & S025 - WEG Heaters**

**S024 & S025** – (009-5-0060 and 009-5-0062).
Two (2) Johnston water-ethylene glycol (WEG) heaters, each with a rating of 82.3 MMBtu/hr., each equipped with ultra-low $NO_x$ burners (ULNB)
**Controls:** None

The WEG heaters are subject to the NSPS for small industrial-institutional-commercial steam generating units, Subpart Dc.
*§60.40c - **Applicability and delegation of authority**.*
(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989, and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr.)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr.).

Compliance Status
During the June 7, 2021, full compliance inspection, WEGs were not in operation.

The Permittee conducted stack test on the two heaters on February 25, 2010, and determined that the $NO_x$ emission rate of 0.02 lb./MMBtu is in compliance with the allowable RACT limit of 0.20 lb./MMBtu.

**Applicable Standards and limits:**

A. Control of Visible Emissions
**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. "

**Compliance Demonstration:**
The Permittee shall record any incidences of visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C].**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements.
**[Reference: COMAR 26.11.01.07C]**

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B. Control of Nitrogen Oxides
**COMAR 26.11.09.08B.** - General Requirements and Conditions.
(1) Emission Standards and Requirements.
(a) A person who owns or operates an installation that causes $NO_x$ emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation. (c) Emission Standards in Pounds of $NO_x$ per Million Btu of heat input. – Gas only: 0.2. "

**Compliance Demonstration:**
The Permittee shall maintain the following records on-site for a period of at least five years and make available to the Department upon request:
(1) Monthly natural gas usage in millions BTU per month for each WEG heater.
(2) $NO_x$ emission rates, lbs./MMBtu of heat input for each WEG heater.
**[Reference: MDE Permit to Construct No. 009-0021-5-0060 and 5-0062 issued 2/12/09]**

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C. NSPS for PM and $SO_x$ Emissions
**40 CFR Part 60** Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
**§60.40c** - Applicability and delegation of authority.
(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9,

1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h). Since the heaters are fired on natural gas only, the record keeping and reporting requirements **§60.48c** apply.

**Compliance Demonstration:**
**§60.48c** - Reporting and recordkeeping requirements.
"(g)(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only **natural gas**, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the $SO_2$ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to **record and maintain records of the amount of each fuel combusted during each calendar month.**"
The Permittee shall report the fuel usage and hours of operation in each quarterly report. This quarterly reporting satisfies the semiannual reporting requirement of §60.48c(j). **[Reference: COMAR 26.11.03.06C].**

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**Emission Unit: Emergency Engines**

One (1) Onan 605 hp diesel-fired engine intended for emergency purposes. **(009-0021-9-0091)**
Three (3) 465 hp emergency generators
Three (3) fire pumps (two (2) onshore and one (1) offshore)
Emergency generators plus offshore fire pump installed prior to July 11, 2005), two (2) onshore fire pumps are: one manufactured in July 2008 and one manufactured in 2016 (installed 2017)
Three (3) emergency diesel-fired air compressors each rated at 475 hp installed in 2018.

Compliance Status
The facility maintains on site records of natural gas usage and unit run log of hours of operation and report excess emissions and exceedances.

**Applicable Standards and limits:**

A. Control of Visible Emissions
**COMAR 26.11.09.05** - Visible Emissions.
**E.** 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.
(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. "

**Compliance Demonstration:**
The Permittee shall maintain records of any visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C]**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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B. Control of Sulfur Oxides
**COMAR 26.11.09.07 -** Control of Sulfur Oxides From Fuel Burning Equipment. Sulfur Content Limitations for Fuel. A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations:
(1) In Areas I, II, V, and VI: (c) Distillate fuel oils, 0.3 percent.

**Compliance Demonstration:**
The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. **[Reference: COMAR 26.11.03.06C].**
The Permittee shall report fuel supplier certification to the Department upon request. **[Reference: COMAR 26.11.09.07C].**

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C. Control of Nitrogen Oxides
**COMAR 26.11.09.08G.** - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.

"(**1**) A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall:
(a) Provide certification of the capacity factor of the equipment to the Department in writing;
(b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
(c) Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request;
(d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
(e) Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request."

**Compliance Demonstration:**
The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. **[Reference: COMAR 26.11.09.08G(1)(b)]**.
For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. **[Reference: COMAR 26.11.03.06C]**
The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. **[Reference: COMAR 26.11.09.08G(1)(c) & COMAR 26.11.03.06C].**
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. **[Reference: COMAR 26.11.09.08G(1)(e) and COMAR 26.11.03.06C].**
(3) Retain records of hours of operation on a monthly basis for all engines. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period. **[Reference: COMAR 26.11.03.06C].**
The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report. **[Reference: COMAR 26.11.09.08G(1)(a) & COMAR 26.11.03.06C]**

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**Emission Unit: Emergency Engines Cont'd**

One (1) Onan 605 hp diesel-fired engine intended for emergency purposes. **(009-0021-9-0091)**
Three (3) 465 hp emergency generators

One (1) fire pump (offshore)
Generators Installed prior to July 11, 2005)

**Applicable Standards and limits:**

**40 CFR Part 63 Subpart ZZZZ** – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
**§63.6595 - When do I have to comply with this subpart?**
(a) *Affected sources.* (1)" ..... If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, **or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013.** .....".

**§63.6603 - What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?**
"Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.
(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in **Table 2d** to this subpart and the operating limitations in Table 2b to this subpart that apply to you."

**Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions**
As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

| For each | You must meet the following requirement, except during periods of startup | During periods of startup, you must |
|---|---|---|
| 4. Emergency stationary CI RICE and black start stationary CI RICE.[2] | a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1] | |
| | b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and | |
| | c. Inspect all hoses and belts every 500 hours of operation or annually, whichever | |

| | | |
|---|---|---|
| | comes first, and replace as necessary. | |

[1]Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

[2]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

**§63.6605 - What are my general requirements for complying with this subpart?**

"(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.
(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source."

**Compliance Demonstration:**

**§63.6625 - What are my monitoring, installation, collection, operation, and maintenance requirements?**

"(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:
(3) An **existing emergency** or black start stationary RICE located at an area source of HAP emissions."

"(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or **an existing emergency stationary RICE located at an area source of HAP emissions,** you must install a non-resettable hour meter if one is not already installed."

"(h) If you operate a new, reconstructed, or **existing stationary engine**, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply."

"(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine."

**§63.6640 - How do I demonstrate continuous compliance with the emission limitations and operating limitations?**

"(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your

operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE."

"(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE 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 (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) 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 RICE in emergency situations.
(2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(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 paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
(i) Emergency stationary RICE 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 RICE beyond 100 hours per calendar year.
(ii) Not Applicable
(iii) Not Applicable.
(3) Not Applicable
(4) Emergency stationary RICE located at area sources of HAP 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 and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity."

**§63.6655 - What records must I keep?**
"(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;
(2) An existing stationary emergency RICE.
(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart."

"(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.
(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines."

"Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable." **[Footnote 2 of Table 2d]**

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**Emission Unit: Emergency Engines Cont'd**

One (1) 360 bhp onshore fire pump manufactured in July 2008.
One (1) 350 hp onshore fire pump installed 2017 manufactured in 2016.
Three (3) emergency diesel-fired air compressors each rated at 475 hp installed in 2018.

**Applicable Standards and limits:**

A. New Source Performance Standards (**NSPS**) under 40 CFR Part 60 Subpart IIII for Stationary Compression Ignition Internal Combustion Engines.

Note: Beginning October 1, 2010, installations subject to 40 CFR Part 60, Subpart IIII must comply with the diesel fuel standards of §60.4207 which limit the maximum sulfur content of the fuel to 15 ppm.

(1) This permit is valid only for the installation of an emergency diesel generator with piston displacement less than 10 liters per cylinder.

(2) The provisions of 40 CFR Part 60, Subpart IIII apply if the emergency diesel generator uses a diesel engine manufactured after April 1, 2006 **[Reference: §60.4200]**.

(3) An emergency diesel generator or diesel engine subject to the requirements of 40 CFR 60, Subpart IIII ("NSPS emergency diesel generator" or "NSPS emergency diesel engine") shall be equipped with a non-resettable hour meter **[Reference: §60.4209(a)].**

(4) For pre-2007 model year NSPS emergency diesel engines, the Permittee must demonstrate compliance with the emission standards specified in Table 1 to 40 CFR Part 60, Subpart IIII, by either **[Reference: §60.4205(a)]:**
(a) Purchasing and installing an engine certified according to 40 CFR Part 89 as meeting the Tier 1 emission standards of 40 CFR §89.112. The engine must be installed and configured according to the manufacturer's specifications **[Reference: §60.4211(b)(1)]** or
(b) Keeping records of engine manufacturer test data indicating compliance with the standard **[Reference: §60.4211(b)(3)].**

(5) For 2007 model year and later model year NSPS emergency diesel engines, the Permittee must purchase and install an engine certified to the emission standards of §60.4205(b) for the same model year and maximum engine horsepower **[Reference: §60.4211(c)]**:
(a) For engines with a maximum engine power less than or equal to 2,237 KW (3,000 HP), the certification emission standards for new nonroad diesel engines in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants **[Reference: §62.4202(a)];**
(b) For engines with a maximum engine power greater than 2,237 KW (3,000 HP), and for 2007 through 2010 model years, the emission standards in Table 1 to 40 CFR Part 60, Subpart IIII (which are the same as the Tier 1 emission standards of 40 CFR §89.112) **[Reference: §62.4202(b)(1)]**.
(c) For 2011 model year and later, the certification emission standards for new nonroad diesel engines in 40 CFR 89.112 and 40 CFR 89.113 **[Reference: §62.4202(b)(2)].**

(6) After December 31, 2008, owners and operators may not install an emergency diesel generator that does not meet the applicable requirements for 2007 model year engines [**Reference: §60.4208**].

(7) The requirements of condition (6) above do not apply to owners or operators of NSPS emergency diesel engines that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location [**Reference: §60.4208**].

**Compliance Demonstration**:
(1) The Permittee shall maintain a log for the emergency generator indicating the hours of operation, and reason for generator operation (i.e., maintenance or operational testing, power outage, etc.).

(2) The Permittee shall maintain on site for the life of the source the following records for the emergency diesel generator(s):
(a) Documentation of the manufacture date of the diesel engine, if manufactured prior to April 1, 2006, and the manufacturer model year of the diesel engine;
(b) The installation date of each emergency diesel generator; and
(c) The certifications of compliance or manufacturer engine test data required by 40 CFR §60.4211 and §60.4214(b).

(3) Beginning October 1, 2007, for any NSPS emergency diesel generator the Permittee shall for each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §80.510. The Permittee shall maintain the required records on site for at least five (5) years.

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B. National Emissions Standards for Hazardous Air Pollutants (**NESHAP**) promulgated under 40 CFR 63, Subparts A and ZZZZ for Reciprocating Internal Combustion Engines
"**§63.6590** - What parts of my plant does this subpart cover?
This subpart applies to each affected source.
(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of **40 CFR part 60 subpart IIII**, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. *No further requirements apply for such engines under this part.*
(1) A new or reconstructed stationary RICE located at an area source."

**Compliance Demonstration:**
See NSPS Requirements

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C. Operational Limits

(1) The Permittee must operate and maintain an NSPS emergency diesel generator and control devices according to the manufacturer's written instructions or according to procedures developed by the owner or operator that are approved by the manufacturer. Additionally, the Permittee may change only those settings that are permitted by the manufacturer. The Permittee must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they may apply to an owner or operator. [**Reference: §60.4211**].

(2) Beginning October 1, 2007, an NSPS emergency diesel generator must combust diesel fuel meeting the requirements of 40 CFR §80.510(a), unless a waiver is obtained from the Department and/or the EPA Administrator. [**Reference: §60.4207**]

(3) Beginning October 1, 2010, an NSPS emergency diesel generator must combust diesel fuel meeting the requirements of 40 CFR §80.510(b), unless a waiver is obtained from the Department and/or the EPA Administrator. [**Reference: §60.4207**].

(4) In accordance with 40 CFR §60.4211(f), If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(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 (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(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 (f)(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 (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(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) 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 and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
(D) The power is provided only to the facility itself or to support the local transmission and distribution system.
(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. **[Reference: §60.4211(f)]**

**Compliance Demonstration:**
See NSPS Requirements.

| Table IV-16 | |
|---|---|
| **COMPLIANCE ASSURANCE MONITORING REQUIREMENTS – PART 64** | |
| **Emission Unit: GE Frame 5 and Solar Turbines with oxidation catalyst (S009, S010 & S021)** | |
| **Applicable Requirement** | **40 CFR 52.21 (PSD-2005-01 & CPCN 9055): CO Emissions** |
| **Emission Limits** | **6 ppmvd @ 15% $O_2$** |
| **Monitoring Requirements** | **Periodic Visual Inspections** |
| I. Indicator | **Visual Inspection of Catalyst and Exhaust Duct** |
| II. Measurement Approach | Monitor the oxidation catalyst effectiveness through visual inspections. Visual inspections will be performed once per year and documented in SAP. Inspections will occur while source is not in operation |
| III. Indicator Value | Darkening or fouling of the catalyst observed during an inspection will provide an indication to the operator that the oxidation catalyst system should be further evaluated and/or corrective actions be initiated. |
| **IV Performance Criteria** | |
| A. Data Representativeness | Fouling/darkening of the catalyst is indicative of the performance of the catalyst |
| B. Verification of Operational Status | N/A |
| C. QA/QC Practices and Criteria | Follow manufacturer's recommendation and Cove Point-specific procedures for quality assurance and control of the inspection program. |
| D. Monitoring Frequency | The visual inspections will be performed on an annual basis. |
| E. Data Collection Procedures | The results of each annual visual inspection will be documented in the SAP. |
| F. Averaging Period | N/A |

**Justification**

Rationale for Selection of Performance Indicator: The principal mechanisms in the operation of an oxidation catalyst system, is the reaction of the CO with oxygen in the exhaust gas as aided by the catalyst. The performance of the oxidation catalyst is affected by catalyst deactivation, thermal degradation, poisoning, sintering or masking.

Darkening indicates the oxidation catalyst is becoming fouled and lowers the effectiveness of the unit. The plan is designed to ensure proper operation of the catalyst and to avoid operating conditions that could damage the catalyst.

Rationale for Selection of Indicator value: The indicator to be used will be observed during visual inspections. When an excursion occurs, corrective action will be initiated as soon as possible. Excursions will be monitored and evaluated to determine the action required to correct the excursion.

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## Emission Unit: S027 & S028 – Combustion Turbines

**S027 & S028** – (009-0021-5-0071)
Two (2) GE Frame 7 combustion turbines with heat recovery steam generators (HRSGs) each nominally rated at 1,062 MMBtu/hr. with a nominal net shaft power of 87.2 MW rated capacity (116,178 hp nameplate power output) equipped with DLN1 combustors, SCRs, and oxidation catalysts.
**Controls:** DLN1, SCR and OC

Compliance Status
During June 7, 2021, full compliance inspection, one (1) GE Frame 7 turbine (7B) was in operation and the second GE Frame 7 (7A) was not in operation.

The initial NSPS startup report of the liquefaction project was provided on March 9th, 2018. The official startup date is Feb 28th, 2018. The startup notice provided initial startup notification for both the 40 CFR Part 60, Subpart Db - Auxiliary Boilers and the 40 CFR Part 60, Subpart KKKK - GE Frame 7 combustion turbines. The first half NSPS semiannual report for the combustion turbine was provided on 7/17/2018.

Initial compliance testing for the Combustion Turbines occurred from April 2 to April 22, 2018. Results are as follows:

| Process Unit | Pollutant tested | Result | Limit | Units |
|---|---|---|---|---|
| Turbine CT A | Ammonia | <0.255 | 5 | ppmvd @ 15% $O_2$ (24-hr block average) |
| Turbine CT B | | <0.235 | | |
| Turbine CT A | Carbon Dioxide | 116.4 | 117 | lb./MMBtu |
| Turbine CT B | | 116.3 | | |
| Turbine CT A | CO (carbon monoxide) | 0.0 | 1.5 | ppm @ 15% $O_2$ |
| Turbine CT B | | 0.0 | | |
| Turbine CT A | $NO_X$ | 2.12 | 2.5 | ppm @ 15% $O_2$ |
| Turbine CT B | | 2.32 | | |
| Turbine CT A | $PM_{10}$ (filterable & condensable) | 0.00253 | 0.007 | lb./MMBtu |
| Turbine CT B | | 0.00466 | | |
| Turbine CT A | Particulate | 0.00222 | 0.0033 | lb./MMBtu |

| | | | | |
|---|---|---|---|---|
| Turbine CT B | Matter | 0.0018 | | |
| Turbine CT A | VOC | 0.001 | 0.7 | lb./MMBtu |
| Turbine CT B | | 0.0007 | | |
| Turbine CT A | Formaldehyde | <4.22, <1.15* | N/A | tons/12-month rolling average |
| Turbine CT B | | <4.35 | | |

$NO_X$ and CO CEMS are installed. * July 25, 2018, Stack Test

**Applicable Standards and limits:**

A. Control of Visible Emissions
**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. "

**Compliance Demonstration:**
The Permittee shall conduct visible observations in accordance with EPA Reference Method 22 at least once each calendar quarter to verify that there are no visible emissions during operation. If visible emissions are observed, the Permittee shall inspect combustion control system, perform necessary adjustments and/or repairs with 48 hours and document in writing the results of the inspection, adjustments and/or repairs. After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, the Permittee shall perform Method 9 observations once daily for at least 1 hour until corrective actions have reduced the visible emissions to less than 20 percent opacity. **[Reference: COMAR 26.11.02.02(h) & COMAR 26.11.03.06C]** The Permittee shall submit to MDE-ARA the results of visible emissions observations in each quarterly report. **[Reference: CPCN Case No. 9318, Condition A-IV-21]** The Permittee shall maintain records of any incidences of visible emissions, the corrective actions taken and results of visible emissions observations. **[Reference: COMAR 26.11.03.06C].** The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

B. Control of Particulate Matter Emissions

**PM**: The Frame 7 CTs are subject to the PM Filterable BACT limit of 0.0033 lb./MMBtu (filterable only) of heat input.

**$PM_{10}$**: The Frame 7 CTs are subject to the $PM_{10}$ BACT limit of 0.007 lb./MMBtu (filterable and condensable) of heat input, except during periods of startup and shutdown. Furthermore, combined emissions from the two Frame 7 CTs are subject to $PM_{10}$ BACT limits of 300.8 lbs./startup event and 5.6 lbs./shutdown event (filterable and condensable).

**$PM_{2.5}$**: The Frame 7 CTs are subject to the $PM_{2.5}$ BACT limit of 0.007 lb./MMBtu (filterable and condensable) of heat input, except during periods of startup and shutdown. Furthermore, combined emissions from the two Frame 7 CTs are subject to $PM_{2.5}$ BACT limits of 300.8 lbs./startup event and 5.6 lbs./shutdown event (filterable and condensable).
**[Reference: CPCN Case No. 9318, Condition A-IV-3]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration**:
The Permittee shall conduct annual performance testing using EPA Method 5 or equivalent method approved by MDE-ARA to demonstrate compliance with **PM** emission limit. The Permittee shall conduct annual performance testing using EPA Methods 201A/202 or equivalent method approved by MDE-ARA to demonstrate compliance with the **$PM_{10}$** and **$PM_{2.5}$** emission limit. **[Reference: CPCN Case No. 9318, Conditions A-IV-7, A-IV-8, and A-IV-9]** The Permittee shall calculate emissions based on fuel flow and emission factors developed during annual stack testing and update emissions on a rolling 12-month basis. **[Reference: CPCN Case No. 9318, Conditions A-IV-13]** The Permittee shall maintain the following on site or electronically for at least 5 years: records of annual performance testing results; record fuel flow monthly, and annual fuel use records, and shall submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-IV-16 & A-IV-24]** The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8.
**[Reference: CPCN Case No. 9318, Conditions A-IV-7. A-IV-18 & A-III-8]**

C. Control of Nitrogen Oxides

**COMAR 26.11.09.08G.** - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.

"(**2**) A person who owns or operates a combustion turbine with a capacity factor greater than 15 percent shall meet an hourly average $NO_X$ emission rate of not more than **42 ppm when burning gas** or 65 ppm when burning fuel oil (dry volume at 15 percent oxygen) or meet applicable Prevention of Significant Deterioration limits, whichever is more restrictive. "

**40 CFR Part 60, Subpart KKKK** - Standards of Performance for Stationary Combustion Turbines for which Construction, Modification or Reconstruction commenced after February 18, 2005.

**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 ($SO_2$).

**§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, modified, or reconstructed turbine firing natural gas | > 850 MMBtu/h | 15 ppm at 15 percent $O_2$ or 54 ng/J of useful output (0.43 lb./MWh) |

The Frame 7 combustion turbines are subject to the $NO_X$ LAER requirements and the $NO_X$ BACT requirements listed in the CPCN Case No. 9138: $NO_X$ emission limit of 2.5 ppmvd at 15% $O_2$ except during periods of startup and shutdown. (3-hour block average). **[Reference: CPCN Case No. 9318, Condition A-IV-4]**

*Note: BACT and LAER limit is more stringent than NSPS and COMAR limits.*

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**

The Permittee shall conduct performance test for $NO_X$ in accordance with the methodologies specified in 40 CFR **§60.4340 & §60.4400.**

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

"(**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."

The Permittee shall demonstrate continuous compliance with $NO_x$ in accordance with 40 CFR **§60.4340** as follows:
"(**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."
The Permittee shall follow the calculations procedures set forth in 40 CFR §60.4350 for the purposes of identifying excess emissions. **[Reference: 40 CFR §60.4350]**
The Permittee shall maintain the following:

a) All applicable $NO_x$ recordkeeping requirements for each of the Frame 7 combustion turbines as specified in 40 CFR §60.4375-40 CFR §60.4395. **[Reference: CPCN Case No. 9318, Conditions A-IV-25]**
b) Annual fuel use records on site or electronically for not less than 3 years and make these records available to MDE-ARA upon request. [COMAR 26.11.09.08K]. **[Reference: CPCN Case No. 9318, Condition A-IV-24]**

The Permittee shall submit the following:

a) CEMS System Downtime Reports as required by COMAR 26.11.01.11E(1).
b) Quarterly CEMS Summary Reports as required by COMAR 26.11.01.11E(2)(c). [COMAR 26.11.01.11E]. **[Reference: CPCN Case No. 9318, Condition A-IV-22]**
c) Quarterly reports of excess emissions and monitor downtime associated with the GE Frame 7 CTs, in accordance with 40 CFR §60.7(c). Excess emissions as defined in 40 CFR §60.4380 ($NO_x$) must be reported for all periods of unit operation, including startup, shutdown, and malfunction. [40 CFR §60.4375]. **[Reference: CPCN Case No. 9318, Condition A-IV-23]**
d) All applicable $NO_x$ reporting and recordkeeping requirements for each of the GE Frame 7 CTs as specified in 40 CFR §60.4375-40 CFR §60.4395. **[Reference: CPCN Case No. 9318, Condition A-IV-25]**
e) Quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in CPCN Case No. 9318 Condition A-III-8.

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D. Control of $SO_x$ Emissions
**COMAR 26.11.09.07** - Control of Sulfur Oxides From Fuel Burning Equipment.
**A.** Sulfur Content Limitations for Fuel. A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations:
(**1**) In Areas I, II, V, and VI: (**d**) Process gas used as fuel, 0.3 percent.

**§60.4330 - What emission limits must I meet for sulfur dioxide ($SO_2$)?**
"(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. ...

(1) You must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain $SO_2$ 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 $SO_2$/J (0.060 lb. $SO_2$/MMBtu) heat input**. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement. "

**Compliance Demonstration:**
**COMAR**: The Permittee shall maintain records of the FERC Gas Tariff for the gas delivered to the facility. **[Reference: COMAR 26.11.03.06C]**

**NSPS**: The Permittee shall conduct performance test for $SO_x$ in accordance with the methodologies specified in 40 CFR **§60.4415** at a frequency described in 40 CFR §60.4370. **[Reference: 40 CFR §60.4360]**
**Note**: Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement. Performance tests are satisfied by the tariff.
**§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.

**§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 $SO_2$/J (0.060 lb. $SO_2$/MMBtu) heat input for units located in continental areas and 180 ng $SO_2$/J (0.42 lb. $SO_2$/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 $SO_2$ /J (0.060 lb. $SO_2$ /MMBtu) heat input for continental areas and has potential sulfur emissions of less than less than 180 ng $SO_2$ /J (0.42 lb. $SO_2$ /MMBtu) heat input for noncontinental areas."

**§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 content value of the gaseous fuel must be determined and recorded once per unit operating day."
**Note:** The FERC Gas Tariff for Cove Point LNG requires gas delivered to Cove Point Terminal to have less than 25 grains of total sulfur per 100 $ft^3$ of natural gas. Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement. Monitoring is fulfilled by the tariff.

The Permittee shall keep records of the sulfur content value of the gaseous fuel determined and recorded once per unit operating day. **[Reference: §60.4370 & COMAR 26.11.03.06C]**.
**Note**: Cove Point LNG maintains records of the FERC Gas Tariff for gas delivered to Cove Point Terminal to comply with this requirement. Daily monitoring is not required due to the tariff.

**COMAR & NSPS**: The Permittee shall report incidences of excess emissions of $SO_2$ as defined in 40 CFR §60.4385 for all periods of unit operation, including startup, shutdown and malfunction and related corrective actions taken in accordance with excess emissions reporting requirements. If the Permittee elects to demonstrate compliance with the $SO_2$ emissions limit in 40 CFR §60.4330 using methods described in §60.4415(a), the Permittee shall submit periodic representative fuel sampling records as part of the quarterly report to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter. **[Reference: COMAR 26.11.01.07C & CPCN Case No. 9318, Conditions A-IV-7. A-IV-18, A-IV-23 & A-IV-26]**

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E. Control of VOC Emissions
The Frame 7 combustion turbines are subject to the **VOC LAER** limit of 0.7 ppmvd at 15% O2 (3-hour block average), except during startup and shutdown. Furthermore, the Frame 7 CTs are subject to VOC LAER limits of 101.0

lbs./startup event and 4.8 lbs./shutdown event. . **[Reference: CPCN Case No. 9318, Condition A-IV-4]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
The Permittee shall conduct annual performance test using EPA Method 18/25A or equivalent method approved by MDE-ARA or CEMs installed and certified under 40 CFR 60 Appendix B and F. **[Reference: CPCN Case No. 9318, Conditions A-IV-7, A-IV-8 & A-IV-9]** The Permittee shall use CO CEMS data as a surrogate for VOC emissions. A correlation shall be developed between CO and VOC emissions based on an initial stack test. The emission correlation shall be verified annually by stack, or a new correlation established. **[Reference: CPCN Case No. 9318, Condition A-IV-13].** The Permittee shall maintain the following: records of the stack testing result, on site for at least 5 years and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** The Permittee shall submit the following:

a) A test protocol to the Department, for approval, at least 30 days prior to the scheduled test date.
b) Report the results of the stack tests to the Department within 60 days of completion of the tests.
c) Quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in CPCN Case No. 9318 Condition A-III-8

**[Reference: CPCN Case No. 9318, Conditions A-IV-7, A-IV-18 & A-III-8]**

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F. Control of Carbon Monoxide (CO) Emissions
The Frame 7combustion turbines are subject to the **CO BACT** emission limit of 1.5 ppmvd at 15% $O_2$ (3-hour average) except during periods of startup and shutdown. Furthermore, combined emissions from the two Frame 7 combustion turbines are subject to BACT limits of 562.4 lbs./startup and 59.2 lbs./shutdown event for CO. **[Reference: CPCN Case No. 9318, Condition A-IV-3]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
The Permittee shall conduct annual performance test using EPA Method 10 or equivalent method approved by MDE-ARA or CEMS installed and certified under 40 CFR 60 Appendix B and F. **[Reference: CPCN Case No. 9318, Conditions A-IV-9]** The Permittee shall continuously monitor the CO emissions via a certified CEMS. **[Reference: COMAR 26.11.01.04B & CPCN Case No. 9318, Condition A-IV-8].** The Permittee shall maintain records of the CEMs data

(CEM certifications and calibration results) on site for at least 5 years and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C].** The Permittee shall submit the following:

a) CEMS System Downtime Reports as required by COMAR 26.11.01.11E(1).
b) Quarterly CEMS Summary Reports as required by COMAR 26.11.01.11E(2)(c). [COMAR 26.11.01.11E]. **[Reference: CPCN Case No. 9318, Condition A-IV-22]**
c) Quarterly reports of excess emissions and monitor downtime associated with the GE Frame 7 CTs, in accordance with 40 CFR §60.7(c). **[Reference: CPCN Case No. 9318, Condition A-IV-23]**
d) Quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in CPCN Case No. 9318 Condition A-III-8.

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G. Control of Ammonia Emissions

The Frame 7 combustion turbines are subject to a limit of 5 ppmvd at 15% $O_2$ (24-hr block average) for ammonia slips from the SCRs. **[Reference: COMAR 26.11.15.05 and CPCN Case No. 9318, Condition A-IV-6]**

**Compliance Demonstration:**

The Permittee shall conduct performance testing at least once every five years using EPA Method CTM-027 or equivalent method approved by MDE-ARA to demonstrate compliance with **ammonia** emission limit. **[Reference: CPCN Case No. 9318, Conditions A-IV-8 and A-IV-9]** The Permittee shall maintain records of performance testing results on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05 & COMAR 26.11.03.06C]** The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. **[Reference: CPCN Case No. 9318, Conditions A-IV-7 & A-IV-18]**

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H. Control of GHG Emissions

The Frame 7 combustion turbines are subject to the **BACT $CO_2e$** emission limit of 117 lb./MMBtu (3-hr block average). **[Reference: CPCN Case No. 9318, Condition A-IV-3]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration**:
The Permittee shall conduct annual performance test for $CO_2$ using EPA Method 3A or equivalent method approved by MDE-ARA or CEMS installed and certified under 40 CFR 60 Appendix B and F **[Reference: CPCN Case No. 9318, Conditions A-IV-7, A-IV-8 & A-IV-9].** The Permittee shall install a $CO_2$ CEMS or calibrated in-line fuel flow meters as specified under 40 CFR 75.10(3) to measure $CO_2$ emissions associated with the production of electricity. **[Reference: CPCN Case No. 9318, Condition A-IV-14 & 40 CFR 75.10(3)].**

Compliance with the project-wide GHG limit is based on the global warming potentials (GWPs) from 40 CFR 98 Subpart A of 1 for carbon dioxide ($CO_2$), 25 for methane ($CH_4$) and 298 for nitrous oxide ($N_2O$). **[Reference: CPCN Case No. 9318, Condition A-III-6].** The Permittee shall hourly record and monitor emissions of $CO_2$ from the Frame 7 combustion turbines utilizing a DHAS installed, calibrated and maintained in accordance with 40 CFR 75. **[Reference: CPCN Case No. 9318, Condition A-IV-14 & 40 CFR 75.10(3)]** The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. **[Reference: CPCN Case No. 9318, Conditions A-IV-7 & A-IV-18]**
The Permittee shall submit the following:

a) Quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in CPCN Case No. 9318 Condition A-III-8.
b) Electronic quarterly reports from the DHAS of $CO_2$ emissions to the EPA Clean Air Markets Business System as specified in 40 CFR §75.64. [40 CFR §75.64]. **[Reference: CPCN Case No. 9318, Condition A-IV-20]**

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**Emission Unit: S029 & S030 – Auxiliary Boilers**

**S029 & S030** – (009-0021-5-0080).
Two (2) Cleaver Brooks natural gas fired auxiliary boilers each rated at 424 MMBtu/hr. heat input (rated at 427 MMBtu/hr. while firing station process natural gas), each equipped with low $NO_x$ burners, SCRs, and oxidation catalysts

Compliance Status
During June 7, 2021, full compliance inspection, both aux boilers were in operation.

Performance testing occurred on February 23-26, 2021. The results are as follows:

| Process Unit | Pollutant tested | Result | Limit | Units |
|---|---|---|---|---|
| Boiler AuxB-A | Carbon Dioxide | 117 | 117 | lb./MMBtu |
| Boiler AuxB-B | | 117 | | |

| | | | | |
|---|---|---|---|---|
| Boiler AuxB-A | CO (carbon monoxide) | <8.22 E-05 | 0.0088 | lb./MMBtu |
| Boiler AuxB-B | | <8.31 E-05 | | |
| Boiler AuxB-A | $PM_{10/2.5}$ (filterable & condensable) | 9.95 E-04 | 0.014 | lb./MMBtu |
| Boiler AuxB-B | | 1.02 E-03 | | |
| Boiler AuxB-A | Particulate Matter | 1.16 E-04 | 0.005 | lb./MMBtu |
| Boiler AuxB-B | | 1.86 E-04 | | |
| Boiler AuxB-A | VOC | <5.62 E-05 | 0.001 | lb./MMBtu |
| Boiler AuxB-B | | <5.65 E-05 | | |

The test results presented above indicate that the emission rates from Auxiliary Boilers (AUXB-A & B) are in compliance with all applicable permit limits

The initial NSPS startup report of the liquefaction project was provided on March 9th, 2018. The official startup date is Feb 28th, 2018. The startup notice provided initial startup notification for both the 40 CFR Part 60, Subpart Db - Auxiliary Boilers and the 40 CFR Part 60, Subpart KKKK - GE Frame 7 combustion turbines. The first half NSPS semiannual report for the combustion turbine was provided on 7/17/2018.

Initial compliance testing for the Aux boilers occurred from April 2 to April 22, 2015. Results are as follows:

| **Process Unit** | **Pollutant tested** | **Result** | **Limit** | **Units** |
|---|---|---|---|---|
| Boiler AuxB-A | Ammonia | 1.44 | 5 | ppmvd @ 15% $O_2$ (24-hr block average) |
| Boiler AuxB-B | | 0.95 | | |
| Boiler AuxB-A | Carbon Dioxide | 117 | 117 | lb./MMBtu |
| Boiler AuxB-B | | 117 | | |
| Boiler AuxB-A | CO (carbon monoxide) | <0.000151 | 0.0088 | lb./MMBtu |
| Boiler AuxB-B | | <8.5E-05 | | |
| Boiler AuxB-A | $NO_X$ | 0.008 | 0.0099 | lb./MMBtu |
| Boiler AuxB-B | | 0.008 | | |
| Boiler AuxB-A | $PM_{10}$ (filterable & condensable) | 0.005 | 0.014 | lb./MMBtu |
| Boiler AuxB-B | | 0.004 | | |
| Boiler AuxB-A | Particulate Matter | 0.0005 | 0.005 | lb./MMBtu |
| Boiler AuxB-B | | 0.0004 | | |
| Boiler AuxB-A | VOC | 1.7E-04 | 0.001 | lb./MMBtu |
| Boiler AuxB-B | | 0.000029 | | |
| Boiler AuxB-A | Formaldehyde | <0.152, <0.048* | N/A | lbs./hr. |
| Boiler AuxB-B | | <0.172 | | |

*July 31, 2018 – August 1, 2018, Stack Test.

**Applicable Standards and limits:**

A. Control of Visible Emissions
**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. "

**Compliance Demonstration:**
The Permittee shall conduct visible observations in accordance with EPA Reference Method 22 at least once each calendar quarter to verify that there are no visible emissions during operation. If visible emissions are observed, the Permittee shall inspect combustion control system, perform necessary adjustments and/or repairs with 48 hours and document in writing the results of the inspection, adjustments and/or repairs. After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, the Permittee shall perform Method 9 observations once daily for at least 1 hour until corrective actions have reduced the visible emissions to less than 20 percent opacity. **[Reference: COMAR 26.11.02.02(H) & COMAR 26.11.03.06C]**
The Permittee shall record any incidences of visible emissions and the corrective actions. **[Reference: COMAR 26.11.03.06C].**
The Permittee shall submit to MDE-ARA the results of visible emissions observations in each quarterly report. **[Reference: CPCN Case No. 9318, Condition A-V-24]**
The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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B. Control of Particulate Matter Emissions
**PM**: The auxiliary boilers are subject to the PM Filterable BACT limit of 0.005 lb./MMBtu (filterable only).

**$PM_{10}$**: The auxiliary boilers are subject to the $PM_{10}$ BACT limit of 0.014 lb./MMBtu (filterable and condensable) of heat input, except during periods of startup and shutdown. Furthermore, auxiliary boilers are subject to $PM_{10}$ BACT limits of

296.8 lbs./startup event and 4.9 lbs./shutdown event (filterable and condensable) for each unit.

**$PM_{2.5}$**: The auxiliary boilers are subject to the $PM_{2.5}$ BACT limit of 0.014 lb./MMBtu (filterable and condensable) of heat input, except during periods of startup and shutdown. Furthermore, auxiliary boilers are subject to $PM_{2.5}$ BACT limits of 296.8 lbs./startup event and 4.9 lbs./shutdown event (filterable and condensable) for each unit.
**[Reference: CPCN Case No. 9318, Condition A-V-3]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
The Permittee shall conduct annual performance testing using EPA Method 5 or equivalent method approved by MDE-ARA to demonstrate compliance with **PM** emission limit.
The Permittee shall conduct annual performance testing using EPA Methods 201A/202 or equivalent method approved by MDE-ARA to demonstrate compliance with the **$PM_{10}$** and **$PM_{2.5}$** emission limit. **[Reference: CPCN Case No. 9318, Conditions A-V-7(a & b) and A-V-8]** The Permittee shall install fuel flow meter and continuously monitor the fuel flow for each auxiliary boiler. **[Reference: CPCN Case No. 9318, Conditions A-V-16]** The Permittee shall maintain the following on site or electronically for at least 5 years: records of annual performance testing results; record fuel flow monthly, and annual fuel use records and shall submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-V-16 & A-V-25]** The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-V-7(a & b). A-V-20 & A-III-8]**

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C. Control of Sulfur Oxides
**COMAR 26.11.09.07** - Control of Sulfur Oxides From Fuel Burning Equipment.
**A.** Sulfur Content Limitations for Fuel. A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations:
(**1**) In Areas I, II, V, and VI: (**d**) Process gas used as fuel, 0.3 percent.

**Compliance Demonstration:**
The Permittee shall install a fuel flow meter on each auxiliary boiler and continuously monitor the fuel flow to each auxiliary boiler. **[Reference: CPCN Case No. 9318, Condition A-V-16]** The Permittee shall record the fuel flow monthly and maintain annual fuel use records on site or electronically for not less than 3 years and make these records available to MDE-ARA upon request. **[Reference: CPCN Case No. 9318, Condition A-V-16 & A-V-25 and COMAR 26.11.09.08K]**

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D. Control of Nitrogen Oxides
The auxiliary boilers are subject to the NOx emission limits as listed in NSPS subpart Db, COMAR 26.11.09.08B(1)(c) and COMAR 26.11.09.08G(1). Furthermore, the auxiliary boilers are subject to the NOx BACT limits listed in CPCN Case No. 9318, Condition A-V-3 and the NOx LAER limits listed in CPCN Case No. 9318, Condition A-V-4.
**NSPS: §60.44b** - Standard for nitrogen oxides (NOx).
(a) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NOx (expressed as $NO_2$) in excess of the following emission limits:

| | **Nitrogen oxide emission limits (expressed as $NO_2$) heat input** | |
|---|---|---|
| **Fuel/steam generating unit type** | **ng/J** | **lb./MMBtu** |
| (1Natural gas and distillate oil, except (4): | | |
| (ii) High heat release rate | 86 | 0.20 |

**COMAR 26.11.09.08B.** - General Requirements and Conditions.
(1) Emission Standards and Requirements.
(c) Emission Standards in Pounds of NOx per Million Btu of heat input. – Gas only: 0.2. "
*Note: BACT and LAER limit is more stringent than NSPS and COMAR limits.*

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
The Permittee shall continuously monitor NOx emissions via CEMS. **[Reference: 40 CFR 60.48b(b) and CPCN Case No. 9318, Condition A-V-8]** The Permittee shall maintain all applicable NOx recordkeeping requirements for each of the auxiliary boilers as specified in 40 CFR §60.49(b) on site for at least five years and submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-V-19]**
The Permittee shall submit the following:
a) CEMS System Downtime Reports as required by COMAR 26.11.01.11E(1).
b) Quarterly CEMS Summary Reports as required by COMAR 26.11.01.11E(2)(c). [COMAR 26.11.01.11E].
c) Quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in CPCN Case No. 9318 Condition A-III-8.
**[Reference: CPCN Case No. 9318, Condition A-V-22 & A-III-8 and COMAR 26.11.01.11E]**

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E. Control of Ammonia Emissions
The auxiliary boilers are subject to a limit of 5 ppmvd at 15% O2 (24-hr block average) for ammonia slip from the SCRs. **[Reference: COMAR 26.11.02.02H and CPCN Case No. 9318, Condition A-V-3]**

**Compliance Demonstration:**
The Permittee shall conduct performance testing at least once every five years using EPA Method CTM-027 or equivalent method approved by MDE-ARA to demonstrate compliance with **ammonia** emission limit. **[Reference: CPCN Case No. 9318, Conditions A-V-8 and A-V-7(a & b)]** The Permittee shall maintain records of performance testing results on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05 & COMAR 26.11.03.06C]** The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. **[Reference: CPCN Case No. 9318, Conditions A-V-7(a & b) & A-V-20]**

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F. Control of Carbon Monoxide Emissions
The auxiliary boilers are subject to a **CO BACT** emission limit of 0.0088 lb./MMBtu (3-hr block average), except during periods of startup and shutdown. Furthermore, the auxiliary boilers are subject to the CO BACT emission limit of 2,618.5 lbs./startup event and 35.9 lbs./shutdown event for each unit.
**[Reference: CPCN Case No. 9318, Condition A-V-3]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
The Permittee shall conduct annual performance testing using EPA Method 10 or equivalent method approved by MDE-ARA or CEMs installed and certified under 40 CFR 60 Appendix B and F. **[Reference: CPCN Case No. 9318, Conditions A-V-8 and A-V-7(a & b).]** The Permittee shall maintain records of performance testing results on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.03.06C]** The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. **[Reference: CPCN Case No. 9318, Conditions A-V-7(a & b) & A-V-20]**
The Permittee shall submit the following:
a) Quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in CPCN Case No. 9318 Condition A-III-8.

**[Reference: CPCN Case No. 9318, Condition A-V-22 and COMAR 26.11.01.11E]**

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G. Control of GHG Emissions
The auxiliary boilers are subject to the $CO_2e$ BACT emission limit of 117 lb./MMBtu (3-hr block average). **[Reference: CPCN Case No. 9318, Condition A-V-3]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
The Permittee shall conduct annual performance tests for $CO_2$ using EPA Method 3A or equivalent method approved by MDE-ARA or CEMs installed and certified under 40 CFR 60 Appendix B and F. **[Reference: CPCN Case No. 9318, Conditions A-V-8 and A-V-7(a & b)]** Unless otherwise approved by MDE-ARA, the Permittee shall install a $CO_2$ CEMS or calibrated in-line fuel flew meters as specified under 40 CFR 75.10(3) to measure $CO_2$ emissions associated with the production of electricity. The Permittee shall conduct an annual combustion tune-up in the auxiliary boilers to ensure efficient operation. All monitoring devices required to demonstrate continuous compliance shall be installed, calibrated and maintained according to manufacturer's specification. **[Reference: CPCN Case No. 9318, Condition A-V-13, A-V-14, & A-V-18 and 40 CFR 75.10(3)]** The Permittee shall hourly record and monitor emissions of $CO_2$ from the auxiliary boilers utilizing a DHAS installed, calibrated and

maintained in accordance with 40 CFR 75 on site for at least five years and submit to the Department upon request. **[Reference: CPCN Case No. 9318, Condition A-V-13, 40 CFR 75.10(3)]** The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. **[Reference: CPCN Case No. 9318, Conditions A-V-7 & A-V-20]**
The Permittee shall submit the following:

a) Results of the combustion tune-up required to satisfy the GHG BACT compliance demonstration in the quarterly report. **[Reference: CPCN Case No. 9318, Condition A-V-23]**
b) Quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in CPCN Case No. 9318 Condition A-III-8.

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H. Control of VOC Emissions
The auxiliary boilers are subject to the VOC LAER limit of 0.001 lb./MMBtu of heat input, except during periods of startup and shutdown. Furthermore, auxiliary boilers are subject to VOC LAER limits of 130.6 lbs./startup event and 1.8 lbs./shutdown event for each unit. **[Reference: CPCN Case No. 9318, Condition A-V-4]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
The Permittee shall conduct annual performance testing using EPA Method 18/25A or equivalent method approved by MDE-ARA or CEMs installed and certified under 40 CFR 60 Appendix B and F. **[Reference: CPCN Case No. 9318, Conditions A-V-8 and A-V-7(a & b)]** The Permittee shall calculate emissions based on fuel flow and emission factors developed during annual stack testing and update emissions on a rolling 12-month basis. The Permittee shall continuously monitor and record inlet and outlet catalyst bed temperature. **[Reference: CPCN Case No. 9318, Condition A-V-12]** The Permittee shall maintain records of performance testing results and monitoring data on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.03.06C]** The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. The Permittee shall submit quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in CPCN Case No.

9318 Condition A-III-8 **[Reference: CPCN Case No. 9318, Conditions A-V-7, A-V-20 & A-III-8]**

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| **Table IV-18a** | |
|---|---|
| **COMPLIANCE ASSURANCE MONITORING REQUIREMENTS – PART 64** | |
| **Emission Unit: Oxidization Catalyst for the Auxiliary Boilers (S029 and S030).** | |
| **Applicable Requirement** | **Limit: 0.0088 lb./MMBtu of CO emissions except during periods of startup and shutdown.** |
| | |
| I. Indicator Number 1 | **Inlet catalyst bed temperature** |
| Measurement Approach | Thermocouple installed at the inlet of the SCR. |
| II. Indicator Range | 400 °F – 1,050 °F during normal operations |
| III. **Performance Criteria** | |
| A. Data Representativeness | The monitoring system consists of a thermocouple located in the catalyst inlet ductwork |
| B. QA/QC Practices and Criteria | Thermocouples calibrated annually by comparison against an instrument of known accuracy. |
| C. Monitoring Frequency | Continuous. |
| D. Data Collection Procedures | The catalyst inlet temperatures readings are recorded electronically. |
| E. Averaging Periods and Excursions | 24-hour block average temperature must be within the acceptable indicator range |
| | |
| I. Indicator Number 2 | Outlet catalyst bed temperature |
| Measurement Approach | Thermocouple installed at the outlet of the catalyst. |
| II. Indicator Range | 400 °F – 1,050 °F during normal operations |
| III. **Performance Criteria** | |
| A. Data Representativeness | The monitoring system consists of a thermocouple located in the catalyst ductwork. |
| B. QA/QC Practices and Criteria | Thermocouples calibrated annually by comparison against an instrument of known accuracy. |
| C. Monitoring Frequency | Continuous. |

| | |
|---|---|
| D. Data Collection Procedures | The catalyst outlet temperature readings are recorded electronically. |
| E. Averaging Periods and Excursions | 24-hour block average temperature must be within the acceptable indicator range. |

**Justification**
Indicator I: Inlet catalyst bed temperature (400°F – 1,050°F during normal operation).
*Rationale*: The rate at which CO is oxidized in the oxidation catalyst is affected by the inlet temperature of the flue gas. The higher the temperature, the faster the oxidation reaction proceeds. There is a minimum temperature at which the oxidation catalyst will fail to perform the required reduction of CO emissions. Alternatively, there is a maximum temperature at which the oxidation catalyst will begin to be damaged by heat. The range of the minimum and maximum temperatures is provided as the indicator range, as determined by DECP engineers based on an oxidation catalyst specification.

Indicator 2: Outlet catalyst bed temperature (400°F – 1,050°F during normal operation).
*Rationale*: Similar to the inlet catalyst bed temperature, the outlet catalyst bed temperature is monitored to ensure the catalyst bed temperature is acceptable across the catalyst. The range of the minimum and maximum temperatures described in the inlet catalyst bed temperature Rationale is provided as the indicator range, as determined by Cove Point engineers based on catalyst specifications.

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**Emission Unit: S034– Emergency Generator**

**S034**– (009-0021-9-0092).
One (1) Emergency diesel fired generator rated at 1502 hp.

Compliance Status
Engines are post 2007 and NSPS. No initial NSPS notification is required for Subpart IIII. On a quarterly basis, Cove Point submits to the Department monthly and 12-month rolling average emissions of $NO_X$, CO, PM, $PM_{2.5}$, $PM_{10}$, VOC, H2CO and $CO_2e$ emitted by the emergency engines.

**Applicable Standards and limits:**

A. Control of Visible Emissions
**COMAR 26.11.09.05** - Visible Emissions.

E. 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.
(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."

**Compliance Demonstration:**
The Permittee shall record of any incidences of visible emissions and the corrective actions for at least five years. **[Reference: COMAR 26.11.03.06C].** The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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B. Control of Particulate Matter Emissions
**PM**: The emergency generator is subject to the PM Filterable BACT and NSPS emission limit of 0.20 g/kW-hr (0.15 g/hp-hr.). **[Reference: CPCN Case No. 9318, Condition A-VI-6]**

**$PM_{10}$**: The emergency generator is subject to the $PM_{10}$ (filterable and condensable) BACT emission limit of 0.23 g/kW-hr (0.17 g/hp-hr.). **[Reference: CPCN Case No. 9318, Condition A-VI-6]**

**$PM_{2.5}$**: The emergency generator is subject to the $PM_{2.5}$ (filterable and condensable) BACT emission limit of 0.23 g/kW-hr (0.17 g/hp-hr.). **[Reference: CPCN Case No. 9318, Condition A-VI-6]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
**PM**: Emissions must be calculated using NSPS Subpart IIII emissions standards and hours of operation. Monthly emissions totals shall be used to calculate 12-month rolling period emissions. [**Reference: CPCN Case No. 9318, Condition A-VI-12]**
**$PM_{10}$**: $PM_{10}$ filterable emissions must be calculated using NSPS Subpart IIII emissions standards and hour of operation. $PM_{10}$ condensable emissions must be calculated using AP-42 emissions factors and hours of operation. Monthly emissions tool must be used to calculate 12-month rolling period [**Reference: CPCN Case No. 9318, Condition A-VI-12]**
**$PM_{2.5}$**: $PM_{2.5}$ filterable emissions must be calculated using NSPS Subpart IIII emissions standards and hour of operation. $PM_{2.5}$ condensable emissions must be calculated using AP-42 emissions factors and hours of operation. Monthly emissions tool must be used to calculate 12-month rolling period [**Reference: CPCN Case No. 9318, Condition A-VI-12]**
**PM, $PM_{10}$ & $PM_{2.5}$**: The Permittee shall maintain vendor guarantees to demonstrate compliance with the BACT emissions limits on site for at least five years and submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-VI-12]**

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C. Control of Sulfur Oxides
**COMAR 26.11.09.07** - Control of Sulfur Oxides From Fuel Burning Equipment.
**A.** Sulfur Content Limitations for Fuel. A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations:
(**1**) In Areas I, II, V, and VI: (**d**) Process gas used as fuel, 0.3 percent.

The emergency generator shall be fueled with ULSD only with a sulfur content not to exceed 15 ppmw. **[Reference: CPCN Case No. 9318, Condition A-VI-3]**

The diesel fuel combusted in the emergency generator must meet the requirements of 40 CFR §60.4207. In addition, to satisfy **BACT and LAER** requirements, only ultra-low sulfur diesel (ULSD) shall be used. **[Reference: CPCN Case No. 9318, Condition A-VI-3 and 40 CFR §60.4207]**

**Compliance Demonstration:**
The Permittee must obtain a certification from the fuel supplier that states that the fuel oil is in compliance with the sulfur in fuel limitation. [**Reference: COMAR 26.11.03.06C]** The Permittee shall maintain records of fuel supplier purchase receipts/certification and annual fuel use records on site or electronically for not less than 3 years and make these records available to MDE-ARA upon request.

The fuel supplier certifications for each fuel delivery that documents the sulfur content of the ultra-low sulfur diesel (ULSD) is 15 ppm sulfur by weight or less shall include the following information:

a) The name of the oil supplier;
b) The date of the delivery;
c) The amount of fuel delivered to the site; and
d) A statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR 80.510.

**[Reference: CPCN Case No. 9318, Condition A-VI-16 & A-VI-17 and COMAR 26.11.09.08K(3)]**

The Permittee shall submit report fuel supplier certification to the Department upon request. The Permittee must provide fuel supplier certifications for each fuel delivery that documents the sulfur content of the ultra-low sulfur diesel (ULSD) is 15 ppm sulfur by weight or less. Fuel supplier certification shall include the following information: 1) the name of the oil supplier; 2) the date of the delivery; 3) the amount of fuel delivered to the site; and 4) a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR 80.150. **[Reference: CPCN Case No. 9318, Conditions A-VI-16 and COMAR 26.11.09.07C]**

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D. Control of Nitrogen Oxides

**COMAR 26.11.09.08G**. Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.

"(1) A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall:

(a) Provide certification of the capacity factor of the equipment to the Department in writing;

(b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;

(c) Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request;

(d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and

(e) Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request."

*Note: BACT and LAER limit is more stringent than NSPS and COMAR limits.*

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
The Permittee shall conduct a combustion analysis for each installation that operates more than 500 hours during a calendar year. Each operator of an installation shall attend operator training program at least once every 3 years, on combustion optimization that are sponsored by MDE, EPA or equipment vendors. **[Reference: COMAR 26.11.09.08G(1)]** The Permittee shall maintain records required by COMAR 26.11.09.08G(1) on site for at least five years and submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-VI-15 and COMAR 26.11.09.08G(1)]** The Permittee shall submit certification of the capacity factor of the equipment to MDE-ARA in writing. **[Reference: COMAR 26.11.09.08G(1)]**

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E. Control of Carbon Monoxide Emissions
The emergency generator is subject to a **CO BACT** and **NSPS** emission limit of 3.5 g/kW-hr (2.6 g/hp-hr.). **[Reference: CPCN Case No. 9318, Condition A-VI-6 and A-VI-8 and NSPS IIII]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
Emissions must be calculated using NSPS Subpart IIII emissions standards and hours of operation. Monthly emissions totals shall be used to calculate 12-month rolling period emissions. The Permittee shall maintain vendor guarantees to demonstrate compliance with the BACT emissions limits on site for at least five years and submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-VI-12]**

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F. Control of GHG Emissions
GHG emissions from the emergency generator must be calculated and included in the project-wide GHG 12-month rolling limit. **[Reference: CPCN Case No. 9318, Condition A-VI-6]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
GHG emissions must be calculated using emission factors from 40 CFR 98 Subpart C for $CO_2$, $CH_4$ and $N_2O$, GWPs of 25 for $CH_4$, 298 for $N_2O$ and hours of operations, **[Reference: CPCN Case No. 9318, Condition A-VI-12].** The Permittee shall maintain records of 12-month rolling $CO_2e$ emissions on site for

at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**

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G. Control of NSPS

The emergency generator is required to comply with NSPS 40 CFR §60, Subpart IIII

New Source Performance Standards (**NSPS**) under 40 CFR Part 60 Subpart IIII for Stationary Compression Ignition Internal Combustion Engines.

Note: Beginning October 1, 2010, installations subject to 40 CFR Part 60, Subpart IIII must comply with the diesel fuel standards of §60.4207 which limit the maximum sulfur content of the fuel to 15 ppm.

(1) This permit is valid only for the installation of an emergency diesel generator with piston displacement less than 10 liters per cylinder.

(2) The provisions of 40 CFR Part 60, Subpart IIII apply if the emergency diesel generator uses a diesel engine manufactured after April 1, 2006 **[Reference: §60.4200]**.

(3) An emergency diesel generator or diesel engine subject to the requirements of 40 CFR 60, Subpart IIII ("NSPS emergency diesel generator" or "NSPS emergency diesel engine") shall be equipped with a non-resettable hour meter **[Reference: §60.4209(a)].**

(4) The Permittee shall only purchase emergency diesel generator certified to meet the emission standards of §60.4205(b). The fire pump engines must be installed and configured according to the manufacturer's specifications.**[Reference: §60.4211(c)]**

(5) The Permittee must operate and maintain emergency diesel generator that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine. **[Reference: §60.4206]**

The emergency generator is subject to the **NMHC and $NO_x$ BACT,LAER and NSPS** emission limit of 6.4 g/kW-hr (4.8 g/hp-hr.). **[Reference: CPCN Case No. 9318, Conditions A-VI-6 & A-VA-8 and NSPS IIII]**.

**Compliance Demonstration:**

The emergency generator must be equipped with, and the Permittee must maintain a non-resettable operating hour meter, or equivalent, to indicate the elapsed operating time. **[Reference: CPCN Case No. 9318, Condition A-VI-10 and A-VI-11]**

Emissions must be calculated using NSPS Subpart IIII emissions standards and hours of operation. Monthly emissions totals shall be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VI-12]**

The Permittee shall maintain records onsite or electronically of the hours of operation of the emergency generator including date, time, and duration and an

explanation of reasons for operation of the engine and all applicable record keeping requirements for the emergency generator as specified in 40 CFR §60.4214. **[Reference: CPCN Case No. 9318, Condition A-VI-13 and A-VI-14].** The Permittee shall obtain vendor guarantee to demonstrate compliance with the BACT and LAER emissions limits. **[Reference: CPCN Case No. 9318, Condition A-VI-12].** The Permittee shall submit all applicable reporting requirements for the emergency generator as specified in 40 CFR §60.4214. **[Reference: CPCN Case No. 9318, Condition A-VI-13 and 40 CFR §60.4214].**

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H. Control of HAPs
National Emissions Standards for Hazardous Air Pollutants (**NESHAP**) promulgated under 40 CFR 63, Subparts A and ZZZZ for Reciprocating Internal Combustion Engines
"**§63.6590** - What parts of my plant does this subpart cover?
This subpart applies to each affected source.
(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of **40 CFR part 60 subpart IIII**, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. *No further requirements apply for such engines under this part.*
(1) A new or reconstructed stationary RICE located at an area source."

**Compliance Demonstration:**
See NSPS Requirements.

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I. Operational Limits
The Permittee is restricted to operating the emergency generator to no more than 100 hours per calendar year for routine maintenance and testing. **[Reference: 40 CFR §60.4211(f) and CPCN Case No. 9318, Conditions A-VI-5].**

**Compliance Demonstration:**
The emergency generator must be equipped with, and the Permittee must maintain a non-resettable operating hour meter or equivalent to indicate the elapsed operating time. **[Reference: CPCN Case No. 9318, Condition A-VI-10 and A-VI-11]** The Permittee shall maintain records on site or electronically of the hours of operation of the emergency generator, including time, date and duration and an explanation of reasons for operation and make available to the Department upon request. **[Reference: CPCN Case No. 9318, Condition A-VI-14].**

**Emission Unit: Five (5) Fire Pump Engines**

(009-0021-9-0093).
Five (5) Fire Pump Engines each rated at 350 hp.

Compliance Status
Engines are post 2007 and NSPS. No initial NSPS notification is required for Subpart IIII. On a quarterly basis, DECP submits to the Department monthly and 12-month rolling average emissions of $NO_x$, CO, PM, $PM_{2.5}$, $PM_{10}$, VOC, H2CO and $CO_2e$ emitted by the emergency engines.

**Applicable Standards and limits:**

A. Control of Visible Emissions
**COMAR 26.11.09.05** - Visible Emissions.
**E**. 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.
(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."

**Compliance Demonstration:**
The Permittee shall maintain record of any incidences of visible emissions and the corrective actions taken for at least five years. **[Reference: COMAR 26.11.03.06C].** The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

**Compliance Demonstration:**
The Permittee shall conduct a combustion analysis for each installation that operates more than 500 hours during a calendar year. Each operator of an installation shall attend operator training program at least once every 3 years, on combustion optimization that are sponsored by MDE, EPA or equipment vendors. **[Reference: COMAR 26.11.09.08G(1)]** The Permittee shall maintain records required by COMAR 26.11.09.08G(1) on site for at least five years and submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-VI-15 and COMAR 26.11.09.08G(1)]** The Permittee shall submit certification of the capacity factor of the equipment to MDE-ARA in writing. **[Reference: COMAR 26.11.09.08G(1)]**

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E. Control of Carbon Monoxide Emissions
The fire pump engines are subject to a **CO BACT** emission limit of 6.68e-3 lb./hp-hr. (3.0 g/bhp-hr. or 4.0 g/kW-hr). **[Reference: CPCN Case No. 9318, Condition A-VI-7]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
Emissions must be calculated using NSPS Subpart IIII emissions standards and hours of operation. Monthly emissions totals shall be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VI-12]** The Permittee shall maintain vendor guarantees to demonstrate compliance with the BACT emissions limits on site for at least five years and submit records to the Department upon request. **[Reference: CPCN Case No. 9318, Conditions A-VI-12]**

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F. Control of GHG Emissions
GHG emissions from the fire pump engines must be calculated and included in the project-wide GHG 12-month rolling limit. **[Reference: CPCN Case No. 9318, Condition A-VI-7]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
GHG emissions must be calculated using emission factors from 40 CFR 98 Subpart C for $CO_2$, $CH_4$ and $N_2O$, GWPs of 25 for $CH_4$, 298 for $N_2O$ and hours of operations, **[Reference: CPCN Case No. 9318, Condition A-VI-12]** The Permittee shall maintain records of 12-month rolling $CO_2e$ emissions on site for

at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**

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G. Control of NSPS

The five fire pump engines are required to complied with NSPS 40 CFR §60, Subpart IIII

New Source Performance Standards (**NSPS**) under 40 CFR Part 60 Subpart IIII for Stationary Compression Ignition Internal Combustion Engines.

Note: Beginning October 1, 2010, installations subject to 40 CFR Part 60, Subpart IIII must comply with the diesel fuel standards of §60.4207 which limit the maximum sulfur content of the fuel to 15 ppm.

(1) This permit is valid only for the installation of an emergency diesel generator with piston displacement less than 10 liters per cylinder.

(2) The provisions of 40 CFR Part 60, Subpart IIII apply if the emergency diesel generator uses a diesel engine manufactured after April 1, 2006 **[Reference: §60.4200]**.

(3) A five pump engines or diesel engine subject to the requirements of 40 CFR 60, Subpart IIII ("NSPS emergency diesel generator" or "NSPS emergency diesel engine") shall be equipped with a non-resettable hour meter **[Reference: §60.4209(a)].**

(4) The Permittee shall only purchase fire pump engines certified to meet the emission standards of §60.4205(b). The fire pump engines must be installed and configured according to the manufacturer's specifications.**[Reference: §60.4211(c)]**

(5) The Permittee must operate and maintain fire pump engines that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine. **[Reference: §60.4206]**

The fire pump engines are subject to the **NMHC and NOx BACT,LAER and NSPS** emission limit of 4.0 g/kW-hr (3.0 g/hp-hr.). **[Reference: CPCN Case No. 9318, Conditions A-VI-7 & A-VA-8 and NSPS IIII]**.

**Compliance Demonstration:**

The fire pump engines must be equipped with, and the Permittee must maintain a non-resettable operating hour meter, or equivalent, to indicate the elapsed operating time. **[Reference: CPCN Case No. 9318, Condition A-VI-10 and A-VI-11]** The Permittee shall maintain records for a period of at least five years in accordance with applicable NSPS. The Permittee shall maintain fire pump engines certification onsite. The Permittee shall maintain onsite or electronically the hours of operation of the five pump engines including date, time, and duration and an explanation of reasons for operation of the engine and all applicable record keeping requirements for the emergency generator as specified in 40 CFR

§60.4214. **[Reference: CPCN Case No. 9318, Condition A-VI-13 and A-VI-14].**
The Permittee shall obtain vendor guarantee to demonstrate compliance with the BACT and LAER emissions limits. **[Reference: CPCN Case No. 9318, Condition A-VI-12].**
The Permittee shall submit all applicable reporting requirements for the fire pump engines as specified in 40 CFR §60.4214. **[Reference: CPCN Case No. 9318, Condition A-VI-13 and 40 CFR §60.4214].**

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H. Control of HAPs
National Emissions Standards for Hazardous Air Pollutants (**NESHAP**) promulgated under 40 CFR 63, Subparts A and ZZZZ for Reciprocating Internal Combustion Engines
"**§63.6590** - What parts of my plant does this subpart cover?
This subpart applies to each affected source.
(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of **40 CFR part 60 subpart IIII**, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. *No further requirements apply for such engines under this part.*
(1) A new or reconstructed stationary RICE located at an area source."

**Compliance Demonstration:**
See NSPS Requirements.

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I. Operational Limits
The Permittee is restricted to operating each of the five fire pump engines to no more than 100 hours per calendar year for routine maintenance and testing. **[Reference: 40 CFR §60.4211(f) and CPCN Case No. 9318, Conditions A-VI-5].**

**Compliance Demonstration:**
The fire pump engines must be equipped with, and the Permittee must maintain a non-resettable operating hour meter or equivalent to indicate the elapsed operating time. **[Reference: CPCN Case No. 9318, Condition A-VI-10 and A-VI-11]** The Permittee shall maintain records on site or electronically of the hours of operation of the emergency generator, including time, date and duration and an explanation of reasons for operation and make available to the Department upon request. **[Reference: CPCN Case No. 9318, Condition A-VI-14].**

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## Emission Unit: S031: Thermal Oxidizer

(009-0021-6-0041).
**S031**: Thermal Oxidizer (56 MMBtu/hr.) equipped with SCR and an oxidization catalyst for Pretreatment process. The thermal oxidizer aids in the destruction of byproducts from the liquefaction plant.

Compliance Status
During the June 7, 2021, full compliance inspection, the thermal oxidizer was not in operation.

Compliance testing for the Thermal Oxidizer occurred on March 1, 2021. The results are as follows:

| Process Unit | Pollutant tested | Result | Limit | Units |
|---|---|---|---|---|
| Thermal Oxidizer | Ammonia | 6.85 | 5 | ppm @15% $O_2$ |
| | Nitrogen Oxides | 1.44 | 2.5 | |

The test results shows that Thermal oxidizer is operating outside the applicable permit limit for ammonia. Cove Point LNG investigated the issue and repairs were made and retested. The Thermal Oxidizer remained off-line until solution was found for the ammonia slip. MDE-ARA issued a notice of violation on June 24, 2021, for failure of ammonia stack testing (March 1 & April 10, 2021). Replacement of the original DNO-2929 catalyst with a more active GTC-802 catalyst and updating of the CAM plan (September 3, 2021, report).

Retesting with the new catalyst was conducted on July 16, 2021, and unit returned to compliance (Sept 3, 2021, report).

| Process Unit | Pollutant tested | Result | Limit | Units |
|---|---|---|---|---|
| Thermal Oxidizer | Ammonia | 1.93 | 5 | ppm @15% $O_2$ |
| | Nitrogen Oxides | 1.21 | 2.5 | |

The test results presented above indicate that the Thermal Oxidizer is in compliance with applicable ammonia limits.

Initial compliance testing for the Thermal Oxidizer occurred from April 2 to April 22, 2018. Results are as follows:

| Process Unit | Pollutant tested | Result | Limit | Units |
|---|---|---|---|---|
| Thermal Oxidizer | Ammonia | 0.95 | 5 | ppmvd @ 15% $O_2$ |
| Thermal Oxidizer | CO (carbon monoxide) | 0.0 | 1.5 | ppm @ 15% $O_2$ |
| Thermal Oxidizer | $NO_x$ | 1.55 | 2.5 | ppmvd @ 15% $O_2$ |

| | | | | |
|---|---|---|---|---|
| Thermal Oxidizer | $PM_{10}$ (filterable & condensable) | 0.0136 | 0.016 | lb./MMBtu |
| Thermal Oxidizer | Particulate Matter | 0.0006 | 0.013 | lb./MMBtu |
| Thermal Oxidizer | VOC | 2.9E-8 | 0.03 | lb./hr. |
| Thermal Oxidizer | Formaldehyde | <0.0324 | N/A | lb./hr. |

**Applicable Standards and limits:**

A. Control of Visible Emissions
**COMAR 26.11.06.02C** - Visible Emission Standards.
"(1) In Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."
**COMAR 26.11.06.02A**. General Exceptions.
"(2) The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications 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 60-minute period."

**Compliance Demonstration:**
The Permittee shall conduct visible observations in accordance with EPA Reference Method 22 at least once each calendar quarter to verify that there are no visible emissions during operation. If visible emissions are observed, the Permittee shall inspect combustion control system, perform necessary adjustments and/or repairs with 48 hours and document in writing the results of the inspection, adjustments and/or repairs. After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, the Permittee shall perform Method 9 observations once daily for at least 1 hour until corrective actions have reduced the visible emissions to less than 20 percent opacity. **[Reference: COMAR 26.11.02.02(H) & COMAR 26.11.03.06C]**
The Permittee shall maintain record of any incidences of visible emissions and the corrective actions taken for at least five years. **[Reference: COMAR 26.11.03.06C].** The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

B. Control of Particulate Matter Emissions
**PM**: The thermal oxidizer is subject to the BACT PM Filterable limit of 0.013 lb./MMBtu. **[Reference: CPCN Case No. 9318, Condition A-VII-2]**

**$PM_{10}$**: The thermal oxidizer is subject to the $PM_{10}$ (filterable and condensable) BACT limit of 0.016 lb./MMBtu. **[Reference: CPCN Case No. 9318, Condition A-VII-2]**

**$PM_{2.5}$**: The thermal oxidizer is subject to the $PM_{2.5}$ (filterable and condensable) BACT limit of 0.016 lb./MMBtu. **[Reference: CPCN Case No. 9318, Condition A-VII-2]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
The Permittee shall conduct annual performance testing using EPA Method 5 or equivalent method approved by MDE-ARA to demonstrate compliance with **PM** emission limit.
The Permittee shall conduct annual performance testing using EPA Methods 201A/202 or equivalent method approved by MDE-ARA to demonstrate compliance with the **$PM_{10}$** and **$PM_{2.5}$** emission limit. **[Reference: CPCN Case No. 9318, Conditions A-IV-7, A-VII-6, and A-VII-7]**
**PM, $PM_{10}$ & $PM_{2.5}$**: Emissions must be calculated based on fuel flow and emission factors developed during annual stack testing and update emissions on a 12-month rolling basis. All monitoring devices required to demonstrate continuous compliance must be installed, calibrated and maintained according to manufacturer's specifications. **[Reference: CPCN Case No. 9318, Condition A-VII-11 and A-VII-13]** The Permittee shall maintain records of stack testing results on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-VII-6. A-VII-14 & A-III-8]**

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C. Control of Sulfur Oxides
**COMAR 26.11.06.05** - Sulfur Compounds from Other than Fuel-Burning Equipment.
"**B**. Areas I, II, V and VI.

**Compliance Demonstration:**
The Permittee shall conduct annual performance testing using EPA Methods 18/25A or equivalent method approved by MDE-ARA to demonstrate compliance with the **VOC** emission limit. **[Reference: CPCN Case No. 9318, Conditions A-VII-6 and A-VII-7]** The Permittee must calculate emissions based on fuel flow and emission factors developed during annual stack testing and update emissions on a 12-month rolling basis. The Permittee must continuously monitor and record inlet and outlet catalyst bed temperature. All monitoring devices required to demonstrate continuous compliance must be installed, calibrated and maintained according to manufacturer's specifications. **[Reference: CPCN Case No. 9318, Condition A-VII-11 and A-VII-13]** The Permittee shall maintain records of monitoring data and stack testing results on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-VII-6. A-VII-14 & A-III-8]**

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G. Control of Ammonia Emissions
The thermal oxidizer is subject to a limit of 5 ppmvd at 15% $O_2$ (24-hr block average) for ammonia slip from the SCR. Furthermore, to satisfy T-BACT requirements, ammonia slip shall be maintained by not injecting ammonia until the SCR reaches an appropriate operating temperature. **[Reference: CPCN Case No. 9318, Conditions A-VII-4 & COMAR 26.11.15.05]**.

**Compliance Demonstration:**
The Permittee shall conduct performance testing twice (at midpoint and at renewal) during the 5-year period using EPA Methods CTM-027 or equivalent method approved by MDE-ARA to demonstrate compliance with the **ammonia** emission limit. **[Reference: CPCN Case No. 9318, Conditions A-VII-6 and A-VII-7 & COMAR 26.11.03.03C].** The Permittee shall maintain records of performance testing results on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit a test protocol to the Department, for approval, at least 30 days prior to the scheduled test date. The Permittee shall report the results of the performance tests to the Department within 60 days after completion of the tests. **[Reference: CPCN Case No. 9318, Conditions A-VII-6 and A-VII-14]**

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| Table IV-21a | |
|---|---|
| **COMPLIANCE ASSURANCE MONITORING REQUIREMENTS – PART 64** | |
| **Emission Unit: Selective Catalytic Reduction (SCR) System for the thermal oxidizer (S031).** | |
| **Applicable Requirement** | **Limit: 2.5 ppmvd at 15% $O_2$ $NO_x$ emissions** |
| | |
| I. Indicator Number 1 | **SCR inlet catalyst bed temperature** |
| Measurement Approach | Thermocouple installed at the inlet of the SCR. |
| II. Indicator Range | 400 °F – 1,050 °F during normal operations |
| III. **Performance Criteria** | |
| A. Data Representativeness | The monitoring system consists of a thermocouple located in the SCR inlet ductwork |
| B. QA/QC Practices and Criteria | Thermocouples calibrated annually by comparison against an instrument of known accuracy. |
| C. Monitoring Frequency | Continuous. |
| D. Data Collection Procedures | The SCR inlet temperatures are recorded electronically. |
| E. Averaging Period | 24-hour block average temperature must be within the acceptable indicator range |
| | |
| I. Indicator Number 2 | **Ammonia feed rate** |
| Measurement Approach | Flowmeter installed on ammonia line to SCR. |
| II. Indicator Range | 4 lb./hr. – 8 lb./hr. during normal operations |
| III. **Performance Criteria** | |
| A. Data Representativeness | The monitoring system consists of a flowmeter located in the ammonia feed line. |
| B. QA/QC Practices and Criteria | Flowmeter calibrated annually. |
| C. Monitoring Frequency | Continuous. |
| D. Data Collection Procedures | The ammonia feed rates are recorded electronically. |
| E. Averaging Period | 24-hour block average flow rate must be within the acceptable indicator range. |

**Justification**
*Indicator 1*: SCR Inlet catalyst bed temperature (400°F – 1,050°F during normal operation)
*Rationale:* The $NO_X$ reduction efficiency to form nitrogen ($N_2$) is partially controlled by the inlet temperature of the SCR catalyst. There is a minimum operating temperature at which the SCR catalyst will fail to perform the desired reduction of $NO_X$ emissions. Alternatively, there is a maximum operating temperature at which the SCR catalysts will begin to be excessively damaged by heat, as well as begin to oxidize ammonia to produce additional $NO_X$. The range of the minimum and maximum operating temperatures is provided as the indicator range for the SCR inlet catalyst bed temperature, as determined by Cove Point engineers based on SCR catalyst specifications.

*Indicator 2*: Ammonia feed rate (4 lb./hr. – 8 lb./hr. during normal operation).
*Rationale*: Ammonia injection feed flow rate is a controlling factor in the reduction of $NO_X$ emissions. The ammonia feed rate is directly related to the amount of $NO_X$ emissions expected to be in the flue gas. As the expected concentration of NOx in the flue gas decreases, the amount of ammonia fed to the system is reduced in order to limit ammonia slip and fouling of the catalyst. The presence of ammonia flow is indicative of the correct operation of the ammonia delivery system to the SCR. There is also a maximum expected concentration of flue gas NOx for the designed SCR System. This will in turn cap the maximum amount of ammonia fed to the SCR, ensuring appropriate operation of the SCR system. The optimal range of minimum and maximum ammonia feed rate is provided as the indicator range for the SCR system, as determined by Cove Point LNG engineers based on SCR catalyst specifications and unit exhaust design and historic operating parameters. The previous feed rate, proposed on February 1, 2019, was within 4 – 12 lb./hr. during normal operation. Based on current operational data, and stack testing for ammonia slip, the maximum expected ammonia feed rate has been reduced, resulting in a CAM Indicator 2 proposal of 4 – 8 lb./hr. during normal operation.

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**Emission Unit: North Ground Flare**

N/A.
North Ground Flares.

Compliance Status
Cove Pont reports $NO_X$ and VOC emissions on a quarterly basis (monthly and 12 months rolling average). The Permittee is currently meeting the emissions limits requirements.

**Applicable Standards and limits:**

A. Control of Visible Emissions

**COMAR 26.11.06.02C** - Visible Emission Standards.

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

**COMAR 26.11.06.02A**. General Exceptions.

"(**2**) The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications 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 60-minute period."

**Compliance Demonstration:**

The Permittee shall maintain record of any incidences of visible emissions and the corrective actions taken for at least five years. **[Reference: COMAR 26.11.03.06C].** The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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B. Control of Particulate Matter Emissions

**PM**: The north flare is subject to the PM Filterable BACT emission limit of 0.7 tpy on a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the BACT limit. **[Reference: CPCN Case No. 9318, Condition A-VIII-2]**

**$PM_{10}$ & $PM_{2.5}$**: The thermal oxidizer is subject to the $PM_{10}$ and $PM_{2.5}$ (filterable and condensable) BACT emission limit of 2.8 tpy on a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the BACT limit. **[Reference: CPCN Case No. 9318, Condition A-VIII-2]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**

**PM, $PM_{10}$ & $PM_{2.5}$**:The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency. and/or hours of operation as appropriate for the gas stream. Monthly emissions totals must be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]**

**PM, $PM_{10}$ & $PM_{2.5}$**: The Permittee shall maintain records of 12-month rolling **PM** (filterable) **$PM_{10}$ & $PM_{2.5}$** (filterable & condensable) emissions and monitoring data on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**

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C. Control of Sulfur Oxides
**COMAR 26.11.06.05** - Sulfur Compounds from Other than Fuel-Burning Equipment.
"**B**. Areas I, II, V and VI.
(**1**) A person may not cause or permit the discharge into the atmosphere from installations other than fuel-burning equipment of gases containing more than 500 ppm of sulfur dioxide. Installations constructed before January 17, 1972, are limited to not more than 2,000 ppm sulfur dioxide.
(**2**) A person may not cause or permit the discharge into the atmosphere from installations other than fuel-burning equipment of gases containing sulfuric acid, sulfur trioxide, or any combination of them greater than 35 milligrams per cubic meter reported as sulfuric acid. Any installation constructed before January 17, 1972, is limited to not more than 70 milligrams per cubic meter of sulfuric acid, sulfur trioxide, or any combination of them, reported as sulfuric acid."

**Compliance Demonstration:**
The Permittee shall maintain records of sulfur emissions on site for at least 5 years and make these records available to MDE-ARA upon request. **[Reference: COMAR 26.11.03.06C]** The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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D. Control of Nitrogen Oxides
The north flare is subject to the $NO_x$ BACT and LAER emission limit of 69.0 tpy on a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the BACT and LAER limit. [**Reference: CPCN Case No. 9318, Condition A-VIII-2 and A-VIII-3]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency and/or hours of operation as appropriate for the gas stream. Monthly emissions totals must be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]** The Permittee shall maintain records of 12-month rolling NOx emissions and monitoring data on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**

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E. Control of Carbon Monoxide Emissions
The north flare is subject to a **CO BACT** emission limit of 31.2 tpy on a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the BACT limit. **[Reference: CPCN Case No. 9318, Condition A-VIII-2]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency and/or hours of operation as appropriate for the gas stream. Monthly emissions totals must be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]** The Permittee shall maintain records of 12-month rolling CO emissions and monitoring data on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**

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F. Control of VOC Emissions
The north flare is subject to the VOC LAER emissions limit of 10.8 tpy a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the LAER limit. **[Reference: CPCN Case No. 9318, Condition A-VIII-3]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency and/or hours of operation as appropriate for the gas stream. Monthly emissions totals must be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]** The Permittee shall maintain records of 12-month rolling VOC emissions and monitoring data on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**

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G. Control of BACT for Toxics
Emissions from the **north** and south flares shall comply with the T-BACT requirement through the presence of a pilot flames and the use of good operating practices and maintaining proper combustion efficiency. **[Reference: COMAR 26.11.15.05]**.

**Compliance Demonstration:**
The Permittee must continuously monitor the presence of a pilot flame. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]** The Permittee shall maintain records of monitoring data for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**

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H. Control of GHG Emissions
GHG emissions from the flares shall be calculated and included in the project-wide GHG 12-month rolling limit. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]**

**Compliance Demonstration:**
$CO_2$, $CH_4$ and $N_2O$ emissions from the flare pilots must be calculated in accordance with the methodology and emission factors noted in 40 CFR 98, Subpart C. $CO_2$, $CH_4$ and $N_2O$ emissions resulting from flaring combusted and uncombusted gas streams during facility restarts and cool-downs must be calculated in accordance with the methodology and emission factors noted in 40

CFR 98, Subpart W and the chemical composition of each gas stream. On a monthly basis, fuel consumption, coupled with the appropriate emission factors and global warming potentials (1 for $CO_2$, 25 for $CH_4$ and 298 for $N_2O$) must be used to calculate emissions on a $CO_2e$ basis. The sum of these emission rates must establish GHG emissions from the North and South Flare on a $CO_2e$ basis. The Permittee must continuously monitor for the presence of a pilot flame during operations through the use of a thermocouple or equivalent monitoring method. **Reference: CPCN Case No. 9318, Condition A-VIII-7]** The Permittee shall maintain records of 12-month rolling project-wide GHG emissions on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**

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I. Operational Limit

The Permittee must be limited to 10 facility restarts (defined by CPCN Case No. 9318 as the startup if project operations, the period during which mixed refrigerant, propane, and/or natural gas in the system are vented to the **North** and South Flares prior to the startup of the sources) during any 12-month rolling period to meet BACT and LAER requirements. These restarts can be warm or cold facility restarts but venting to flares during any restart must be limited to one hour to each flare (**North** and South) per restart event. **[Reference: CPCN Case No. 9318, Condition A-VIII-5]**

The Permittee must limit flaring of gas vented from warm ships during the cool-down process to a maximum of 12 events in any 12-month rolling period. **[Reference: CPCN Case No. 9318, Condition A-VIII-6]**

**Compliance Demonstration:**

The Permittee shall maintain records of the number of facility restarts and records of the number of ship cool-down venting events on site for at least five years and submit to the Department upon request. **[Reference: CPCN Case No. 9318, Condition A-VIII-5, A-VIII-6 and COMAR 26.11.01.05]**

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**Emission Unit: South Ground Flare**

N/A.
South Ground Flares.

Compliance Status

Cove Point reports $NO_X$ and VOC emissions on a quarterly basis (monthly and 12 months rolling average). The Permittee is currently meeting the emissions limits requirements.

**Applicable Standards and limits:**

A. Control of Visible Emissions
**COMAR 26.11.06.02C** - Visible Emission Standards.
"(1) In Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."
**COMAR 26.11.06.02A**. General Exceptions.
"(2) The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications 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 60-minute period."

**Compliance Demonstration:**
The Permittee shall maintain record of any incidences of visible emissions and the corrective actions taken for at least five years. **[Reference: COMAR 26.11.03.06C].** The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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B. Control of Particulate Matter Emissions
**PM**: The south flare is subject to the PM Filterable BACT emission limit of **0.4 tpy** on a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the BACT limit. **[Reference: CPCN Case No. 9318, Condition A-VIII-2]**

**$PM_{10}$ & $PM_{2.5}$**: The thermal oxidizer is subject to the $PM_{10}$ and $PM_{2.5}$ (filterable and condensable) BACT emission limit of **1.7 tpy** on a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the BACT limit.
**[Reference: CPCN Case No. 9318, Condition A-VIII-2]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
**PM, $PM_{10}$ & $PM_{2.5}$**: The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency. and/or hours of operation as appropriate for the gas stream. Monthly emissions totals must be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]**
**PM, $PM_{10}$ & $PM_{2.5}$**: The Permittee shall maintain records of 12-month rolling **PM** (filterable) ,**$PM_{10}$ & $PM_{2.5}$** (filterable & condensable) emissions and monitoring data on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**

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C. Control of Sulfur Oxides
**COMAR 26.11.06.05** - Sulfur Compounds from Other than Fuel-Burning Equipment.
"**B**. Areas I, II, V and VI.
(**1**) A person may not cause or permit the discharge into the atmosphere from installations other than fuel-burning equipment of gases containing more than **500 ppm** of sulfur dioxide. Installations constructed before January 17, 1972, are limited to not more than 2,000 ppm sulfur dioxide.
(**2**) A person may not cause or permit the discharge into the atmosphere from installations other than fuel-burning equipment of gases containing sulfuric acid, sulfur trioxide, or any combination of them greater than 35 milligrams per cubic meter reported as sulfuric acid. Any installation constructed before January 17, 1972, is limited to not more than 70 milligrams per cubic meter of sulfuric acid, sulfur trioxide, or any combination of them, reported as sulfuric acid."

**Compliance Demonstration:**
The Permittee shall maintain records of **sulfur** emissions on site for at least 5 years and make these records available to MDE-ARA upon request.
**[Reference: COMAR 26.11.03.06C]** The Permittee shall report incidences of excess emissions and related corrective actions taken in accordance with excess emissions reporting requirements. **[Reference: COMAR 26.11.01.07C]**

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D. Control of Nitrogen Oxides
The south flare is subject to the $NO_x$ BACT and LAER emission limit of **41.0 tpy** on a 12-month rolling basis, at all times. The flare shall use the presence of pilot

flame, good operating practices, proper combustion, and design to achieve the BACT and LAER limit. **[Reference: CPCN Case No. 9318, Condition A-VIII-2 and A-VIII-3]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency and/or hours of operation as appropriate for the gas stream. Monthly emissions totals must be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]** The Permittee shall maintain records of 12-month rolling **NOx** emissions and monitoring data on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**

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E. Control of Carbon Monoxide Emissions
The south flare is subject to a **CO BACT** emission limit of **18.4 tpy** on a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the BACT limit. **[Reference: CPCN Case No. 9318, Condition A-VIII-2]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency and/or hours of operation as appropriate for the gas stream. Monthly emissions totals must be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]** The Permittee shall maintain records of 12-month rolling **CO** emissions and monitoring data on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**

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F. Control of VOC Emissions

The south flare is subject to the **VOC LAER** emissions limit of **4.0 tpy** on a 12-month rolling basis at all times. The flare shall use the presence of pilot flame, good operating practices, proper combustion, and design to achieve the LAER limit. **[Reference: CPCN Case No. 9318, Condition A-VIII-3]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**

The Permittee must continuously monitor the presence of a pilot flame. Emissions must be calculated using gas measurements, AP-42 emission factors, gas mass balance, flare control efficiency and/or hours of operation as appropriate for the gas stream. Monthly emissions totals must be used to calculate 12-month rolling period emissions. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]** The Permittee shall maintain records of 12-month rolling **VOC** emissions and monitoring data on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**

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G. Control of BACT for Toxics

Emissions from the north and **south** flares shall comply with the T-BACT requirement through the presence of a pilot flames and the use of good operating practices and maintaining proper combustion efficiency. **[Reference: COMAR 26.11.15.05]**.

**Compliance Demonstration:**

The Permittee must continuously monitor the presence of a pilot flame. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]** The Permittee shall maintain records of monitoring data for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**

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H. Control of GHG Emissions

GHG emissions from the flares shall be calculated and included in the project-wide GHG 12-month rolling limit. **[Reference: CPCN Case No. 9318, Condition A-VIII-7]**

**Compliance Demonstration:**
$CO_2$, $CH_4$ and $N_2O$ emissions from the flare pilots must be calculated in accordance with the methodology and emission factors noted in 40 CFR 98, Subpart C. $CO_2$, $CH_4$ and $N_2O$ emissions resulting from flaring combusted and uncombusted gas streams during facility restarts and cool-downs must be calculated in accordance with the methodology and emission factors noted in 40 CFR 98, Subpart W and the chemical composition of each gas stream. On a monthly basis, fuel consumption, coupled with the appropriate emission factors and global warming potentials (1 for $CO_2$, 25 for $CH_4$ and 298 for $N_2O$) must be used to calculate emissions on a $CO_2e$ basis. The sum of these emission rates must establish GHG emissions from the North and South Flare on a $CO_2e$ basis. The Permittee must continuously monitor for the presence of a pilot flame during operations through the use of a thermocouple or equivalent monitoring method. **Reference: CPCN Case No. 9318, Condition A-VIII-7]** The Permittee shall maintain records of 12-month rolling project-wide **GHG** emissions on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**

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I. Operational Limit
The Permittee must be limited to 10 facility restarts (defined by CPCN Case No. 9318 as the startup if project operations, the period during which mixed refrigerant, propane, and/or natural gas in the system are vented to the North and **South** Flares prior to the startup of the sources) during any 12-month rolling period to meet BACT and LAER requirements. These restarts can be warm or cold facility restarts but venting to flares during any restart must be limited to one hour to each flare (North and **South**) per restart event. **[Reference: CPCN Case No. 9318, Condition A-VIII-5]**

The Permittee must limit flaring of gas vented from warm ships during the cool-down process to a maximum of 12 events in any 12-month rolling period. **[Reference: CPCN Case No. 9318, Condition A-VIII-6]**

**Compliance Demonstration:**
The Permittee shall maintain records of the number of facility restarts and records of the number of ship cool-down venting events on site for at least five years and submit to the Department upon request. **[Reference: CPCN Case No. 9318, Condition A-VIII-5, A-VIII-6 and COMAR 26.11.01.05]**

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## Emission Unit: FL7- Component Leaks

N/A.
**FL7**: Piping and Equipment Component Leaks – Liquefaction (Export ) Facility.

Compliance Status
The Leak Detection and Repair (LDAR) monitoring plan was initially provided on March 12, 2018 (within 30 days after issuance of Order No. 88565) for MDE review and approval. Prior to MDE approval it was modified on June 1, 2018, and again on September 12th, 2018, based on comments from MDE. The LDAR monitoring plan was approved by MDE on Sept 12th, 2018.
The September 2018, monthly report listed 144,296 components, 21,780 surveyed by OGI, 16,488 surveyed by Method 21, 12 leaks identified in September 11 (92%) leaks repaired on 1st attempt, 11 leaks repaired within 15 days, 1 leak placed on "Delay of Repair", 0 leaks removed from Delay of Repair 34 leaks remaining on Delay of repair and 0 deviations from the monitoring plan.
The 1st Q 2019 LADR report was reviewed. $CO_2e$ and VOC emissions were totaled for the 1st Q. The 12-month rolling CO2e was 662 tons from leaks and the VOC was 16 tons from leaks. In the first quarter of 2019; 178,902 Components were surveyed by OGI; 34,998 components were surveyed by M21, and 120 leaks were identified. Repairs were made in a timely fashion with 19 leaks remaining on DOR end of April.

## Applicable Standards and limits:

A. Control of VOC Equipment Leaks
**COMAR 26.11.19.16C** - General Requirements.
"A person subject to this regulation shall comply with all of the following requirements:
(1) Visually inspect all components on the premises for leaks at least once each calendar month.
(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.
(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.
(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.
(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.

(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence."
**Note**: Cove Point complies with these requirements by following the approved site-specific LDAR Monitoring Plan.

**COMAR 26.11.19.16D**. Exceptions. "Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown."

**Compliance Demonstration:**
The Permittee shall monitor emissions from component leaks by implementing the LDAR Monitoring Plan and Program. [**Reference: CPCN Case No. 9318, Condition A-IX-2]**
The Permittee shall maintain records as required by the LDAR Monitoring Plan and Program on site for at least five years and make available to the Department upon request. **[Reference: COMAR 26.11.01.05].**

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B. Control of VOC Emissions
VOC emissions from component leaks must comply with LAER requirements through the implementation of a Site-Specific VOC LDAR Monitoring Plan and Program following the procedures outlined in the 28LAER Program specified in TCEQ's Control Efficiencies for TCEQ Leak Detection and Repair Programs as amended. [**Reference: CPCN Case No. 9318, Condition A-IX-3]**

*See Table IV-25 for additional requirements.*

**Compliance Demonstration:**
The Permittee must monitor emissions from component leaks by implementing the LDAR Monitoring Plan and Program. Emissions from component leaks must be calculated based on the results of gas analyzer monitoring/optical gas imaging and through the use of Table 2-4 of EPA's *Protocol for Equipment Leak Emission Estimates* and by the chemical composition of each material and must consider the control efficiencies based on 28LAER LDAR program. [**Reference: CPCN Case No. 9318, Condition A-IX-2 & A-IX-5]** The Permittee shall maintain records as required by LDAR Monitoring Plan and Program, generated monthly, quarterly and annual reports on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the

30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**
By April 1st of each year, the Permittee shall notify MDE-ARA of any updates to or deviations from its site-specific LDAR Monitoring Plan occurring during the previous calendar year, unless an alternative reporting schedule is approved by MDE-ARA. **[Reference: CPCN Case No. 9318, Conditions A-IX-3]**

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C. Control of BACT for Toxics
Emissions from the component leaks shall comply with the T-BACT requirement through the implementation of a VOC LDAR Monitoring Plan and Program. **[Reference: CPCN Case No. 9318, Condition A-IX-4 and COMAR 26.11.15.05]**

**Compliance Demonstration:**
The Permittee shall maintain records as required by the LDAR Monitoring Plan and Program on site for at least five years and make available to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit written certification of the results of an analysis of emissions of TAPs by April 1st of each year for the previous calendar year. **[Reference: COMAR 26.11.15 & .16]**

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D. Control of GHG Emissions
GHG BACT must be the implementation of an LDAR Monitoring Plan and Program following the procedures outlined in the TCEQ 28LAER Texas Commission of Environmental Quality's (TCEQ's) Control Efficiencies for TCEQ Leak Detection and Repair Programs, as amended. **[Reference: CPCN Case No. 9318, Condition A-IX-2]**

**Compliance Demonstration:**
The Permittee must monitor emissions form component leaks by implementing the LDAR Monitoring Plan and Program. Emissions from component leaks must be calculated based on the results of gas analyzer monitoring/optical gas imaging and through the use if Table 2-4 of EPA's *Protocol for Equipment Leak Emission Estimates* and by the chemical composition of each material and must consider the control efficiencies based on 28LAER LDAR program. **[Reference: CPCN Case No. 9318, Condition A-IX-2 & A-IX-5]** The Permittee shall maintain records as required by the LDAR Monitoring Plan and Program, generated monthly, quarterly and annual reports on site for at least five years and make available to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit all quarterly reports to MDE-ARA to be

postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**

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**Emission Unit: Project-wide – Liquefaction Project**

**S001, S002, S003** – (009-5-0012, 5-0013, 5-0014)
Three (3) natural gas-fired, simple-cycle General Electric Frame 3 combustion turbine (model MS3142) with a nominal rating of 135.6 MMBTU/hr. – used to generate electricity.
**Controls:** Selective catalytic reduction (SCR) unit

**S009 & S010** – (009-5-0049 & 5-0050)
Two (2) natural gas-fired simple-cycle General Electric Frame 5 Turbine with a nominal rating of 302 MMBtu/hr. equipped with dry-low $NO_x$ combustion (DLN), SCR and oxidation catalyst (OC)
**Controls:** DLN, SCR and OC

**S021** – (009-0021-5-0065)
One (1) natural gas-fired, Solar Titan turbine with nominal rating of 137 MMBtu/hr. equipped with DLN combustors, SCR, and oxidation catalyst.
**Controls:** DLN, SCR and OC

**S027 & S028** – (009-0021-5-0071)
Two (2) GE Frame 7 combustion turbines (CT) with heat recovery steam generators (HRSGs) each nominally rated at 1,062 MMBtu/hr. with a nominal net shaft power of 87.2 MW rated capacity (116,178 hp nameplate Power Output), equipped with dry low $NO_x$ (DLN1) combustors, selective catalytic reduction system (SCRs), and oxidation catalysts

**S029 & S030** – (009-0021-5-0080).
Two (2) Cleaver Brooks natural gas fired auxiliary boilers each rated at 424 MMBtu/hr. heat input (rated at 427 MMBtu/hr. while firing station process natural gas), each equipped with low $NO_x$ burners, SCRs, and oxidation catalysts.

**S034** – (009-0021-9-0092)
One (1) Emergency diesel fired generator rated at 1502 hp.

N/A – (09-0021-9-0093)
Five (5) diesel-fired fire pump engines each rated at 350 hp.

**S031** – (009-0021-96-0041)

Thermal Oxidizer (56 MMBtu/hr.) equipped with SCR and an oxidization catalyst for Pretreatment process.

**S032** – N/A
North Ground Flare

**S033** – N/A
South Ground Flare

**FL7** – N/A
Piping Components associated with this project, including valves, connectors, flanges, pump seals, and pressure relief valves within the facility boundary

**S024 and S025** –
Water Ethylene Glycol Heaters

Compliance Status
During the June 7, 2021, full compliance inspection, GE Frame 7 Combustion Turbine (7B) was operating at typical rates. Auxiliary boilers A & B were operating. The thermal oxidizer was not operating.

Quarterly Summary Report: (July 1, 2021, through September 30, 2021) Calculated Monthly Block and 12-month rolling emissions dated October 28, 2021, submitted to the Department.

Table 1: Facility-Wide Emissions Summary

| Name | Pollutant | Monthly (tons) | | | Rolling (tons) | | | Permit Limit (tpy) |
|---|---|---|---|---|---|---|---|---|
| | | July | Aug | Sept | July | Aug | Sept | |
| Cove Point Liquefaction Facility-Wide Total | $NO_X$ | 9.90 | 7.57 | 10.33 | 114.78 | 116.01 | 99.86 | 279.3 |
| | CO | 6.68 | 1.86 | 3.76 | 53.87 | 54.90 | 48.23 | 146.6 |
| | PM-Filt. | 0.66 | 0.67 | 0.47 | 7.82 | 7.85 | 7.66 | 55.7 |
| | $PM_{2.5}$ - Total | 2.13 | 1.37 | 1.18 | 21.58 | 21.51 | 20.64 | 124.2 |
| | $PM_{10}$- Total | 2.13 | 1.37 | 1.18 | 21.58 | 21.51 | 20.64 | 124.2 |
| | VOC | 1.42 | 0.75 | 0.83 | 11.45 | 11.46 | 11.30 | 50.9 |
| | H2CO | 0.38 | 0.39 | 0.24 | 4.46 | 4.46 | 4.44 | 6.2 |
| | $CO_2e$ | 87,675 | 87,236 | 64,848 | 1,053,620 | 1,054,473 | 1,046,682 | 2,030,988 |

## Applicable Standards and limits:

A. Control of Particulate Matter Emissions
The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the **PM** (filterable only) emission limit of 55.7 tons per year

in any consecutive 12-month rolling period. [**Reference: CPCN Case No. 9318, Condition A-III-4]**

The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the **$PM_{10}$** (filterable and condensable) emission limit of 124.2 tons per year in any consecutive 12-month rolling period. [**Reference: CPCN Case No. 9318, Condition A-III-4]**

The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the **$PM_{2.5}$** (filterable and condensable) emission limit of 124.2 tons per year in any consecutive 12-month rolling period. **[Reference: CPCN Case No. 9318, Condition A-III-4]**

**Compliance Demonstration:**
The Permittee shall maintain records of 12-month rolling **PM** (filterable), **$PM_{10}$** (filterable and condensable) and **$PM_{2.5}$** (filterable and condensable) emissions and shall submit records to the Department upon request. **[Reference: COMAR 26.11.01.05 & COMAR 26.11.03.06C]** The Permittee shall submit all quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing information listed in CPCN Case No. 9318, Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**

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B. Control of Nitrogen Oxides
The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the $NO_x$ emission limit of 279.3 tons per year in any consecutive 12-month rolling period. [**Reference: CPCN Case No. 9318, Condition A-III-4]**

**Compliance Demonstration:**
The Permittee shall maintain records of 12-month rolling $NO_x$ emissions on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05]** The Permittee shall submit quarterly reports to MDE-ARA to be postmarked by the 30$^{th}$ day of the month following the end of each calendar quarter containing the information listed in CPCN Case No. 9318 Condition A-III-8. **[Reference: CPCN Case No. 9318, Condition A-III-8]**

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C. Control of Carbon Monoxide Emissions
The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the CO emission limit of 146.6 tons per year in any consecutive 12-month rolling period. [**Reference: CPCN Case No. 9318, Condition A-III-4]**

**Compliance Demonstration:**
The Permittee shall maintain records of 12-month rolling CO emissions on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05 & COMAR 26.11.03.06C]** The Permittee shall submit quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in CPCN Case No. 9318 Condition A-III-8. **[Reference: CPCN Case No. 9318, Condition A-III-8]**

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D. Control of GHG Emissions
The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the **GHG as $CO_2e$** emission limit of 2,030,988 tons per year in any consecutive 12-month rolling period. **[Reference: CPCN Case No. 9318, Condition A-III-4]**

**Compliance Demonstration:**
The Permittee shall maintain records of 12-month rolling $CO_2e$ emissions on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05 & COMAR 26.11.03.06C]** The Permittee shall submit quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in CPCN Case No. 9318 Condition A-III-8. **[Reference: CPCN Case No. 9318, Condition A-III-8]**

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E. Control of VOC Emissions
The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the **VOC** emission limit of 50.9 tons per year in any consecutive 12-month rolling period. **[Reference: CPCN Case No. 9318, Condition A-III-4]**

**Compliance Demonstration:**
The Permittee shall maintain records of 12-month rolling VOC emissions on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05 & COMAR 26.11.03.06C]** The Permittee shall submit quarterly reports to MDE-ARA to be postmarked by the 30th day of the month following the end of each calendar quarter containing the information listed in CPCN Case No. 9318 Condition A-III-8. **[Reference: CPCN Case No. 9318, Conditions A-III-8]**

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F. Control of Formaldehyde Emissions
The Liquefaction Project, including emissions during periods of startup and shutdown is subject to the formaldehyde emission limit of 6.2 tons per year in any consecutive 12-month rolling period. **[Reference: CPCN Case No. 9318, Condition A-III-4]**

**Compliance Demonstration:**
The Permittee shall maintain records of 12-month rolling formaldehyde emissions on site for at least five years and submit records to the Department upon request. **[Reference: COMAR 26.11.01.05 & COMAR 26.11.03.06C]**

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G. Operational Limits
**For S009, S010, S001, S002, S003 & S021 only: Power Production Limitation**
These units must only provide a total maximum of 25 MW on an as needed basis to the Liquefaction process. For the purposes of this definition, the term "as needed" as applied to the Frame 3 (**S001, S002 & S003**) and Solar Titan (**S021**) combustion turbines means there is not a Frame 5 combustion turbine (**S009 & S010**) available due to an abnormal or emergency event to provide to power the project. **[Reference: CPCN Case No. 9318, Condition A-I-3(g)]**

**For S024 & S025 only**
The Permittee must not operate both existing Water Ethylene Glycol Heaters (**S024 & S025**) at the same time, except when necessary to provide contracted, FERC-authorized services and in that event the Permittee must provide prior written notification to MDE. **[Reference: CPCN Case No. 9318, Condition A-XI]**

**Compliance Demonstration:**
**For S009, S010, S001, S002, S003 & S021 only: Power Production Limitation**
The Permittee shall monitor usage of the import turbines for liquefaction and ensure compliance on a 12-month rolling average basis. **[Reference: COMAR 26.11.01.04]**
The Permittee shall maintain records of power produced by these units and used by the liquefaction process on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**

**For S024 & S025 only**
The Permittee shall maintain records of written notification on site for at least five years and submit to the Department upon request. **[Reference: COMAR 26.11.01.05]**
The Permittee shall submit prior written notification to MDE in the event of needing to run both heaters at the same time in order to provide contracted

FERC-authorized services. **[Reference: CPCN Case No. 9318, Conditions A-XI]**

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**Emission Unit: VOC Vessels (Storage Tanks)**

N/A.
VOC Vessels (Storage Tanks).
Storage tanks (operating on a closed loop system):
Four (4) 102,448-gallon operating capacity propane make-up tanks;
Two (2) 34,040-gallon operating capacity ethane make-up tanks; and
Two (2) 32,429-gallon operating capacity hydrocarbon tanks
One (1) propane transfer drum with an operating capacity of 5,538 gallons.
Two (2) 0.05 MMBtu/hr. propane vaporizers utilized for flare pilot backup fuel.
One (1) nominal 1850-gallon propane North Flare pilot backup tank.
One (1) nominal 1000-gallon propane South Flare pilot backup tank.

Compliance Status
The two condensate storage tanks, which only stored isopentane during the initial start-up of the plant, provided necessary NSPS Subpart Kb notifications. On 6/8/2018 NSPS Subpart Kb initial report was submitted for two 35,000-gallon condensate storage tanks (32,429-gallon operating capacity). On 12/14/2017 the initial NSPS start-up report was submitted (initial tank startup was 12/6/2017).

Semi-annual Report (June 1, 2018 - November 30, 2018): 40 CFR 60.115b(d)(3), Flare Pilot Downtime as follows (dated December 5, 2018):

North Low Pressure (LP) Flare Pilots experienced downtime* as follows:

| Flare Pilot ID | Pilot Downtime (hours) | Reason |
|---|---|---|
| North – LP – Stages 1-6 | 9/21/2018 14 - 18 | Station Outage: Switch to Propane Backup Fuel |
| North – LP – Stages 7 | 9/21/2018 14 - 20 | |
| North – LP – Stages 8 | 9/21/2018 15 - 17 | |
| North – LP – Stages 9 | 9/21/2018 15 | |
| North – LP – Stages 10 | 9/21/2018 14 - 15 | |

*Downtime determined through thermocouple monitoring less than 250oF (Low-Low Station Alarm).

North Low Pressure (LP) Flare Pilot were not monitored as follows:

| Flare Pilot ID | Pilot Downtime (hours) | Reason |
|---|---|---|
| North – LP – Stages 1 | 9/26/2018 21 | Station Outage: Transmitter Preventative Maintenance (PM) |
| North – LP – Stages 2, 3 | 9/26/2018 22 | |
| North – LP – Stages 4, 5 | 9/26/2018 23 | |
| North – LP – Stages 6 - 8 | 9/27/2018 01 | |
| North – LP – Stages 9, 10 | 9/27/2018 02 | |

Semi-annual Report (January 1, 2019 - June 30, 2019): 40 CFR 60.115b(d)(3), Flare Pilot Downtime: None.

**Applicable Standards and limits:**

A. Control of Gasoline and VOC Storage and Handling
**COMAR 26.11.13.03** - Large Storage Tanks.
**A**. Closed Top Tanks.
(**1**) Equipment Requirements. A person may not place or store gasoline or VOC having a TVP between 1.5 psia (10.3 kilonewton/square meter) and 11 psia (75.6 kilonewton/square meter), inclusive, in any closed top tank with a capacity of 40,000 gallons (151,400 liters) or greater unless the:
(**b**) Tank is equipped with one of the following properly installed, operating, and well-maintained emission control systems:
(**iii**) A vapor control system capable of collecting the vapors from the tank and disposing of these vapors to prevent their emission to the atmosphere.
**COMAR 26.11.13.04D** - General Standards. "A person may not cause or permit gasoline or VOC having a TVP of 1.5 psia (10.3 kilonewtons/square meter) or greater to be loaded into any tank truck, railroad tank car, or other contrivance unless the:
(1) Loading connections on the vapor lines are equipped with fittings that have no leaks and that automatically and immediately close upon disconnection to prevent release of gasoline or VOC from these fittings; and
(2) Equipment is maintained and operated in a manner to prevent avoidable liquid leaks during loading or unloading operations."
**[Reference: CPCN Case No. 9318, Condition A-IX-1]**

**Compliance Demonstration:**
The Permittee shall maintain records of tank content on site for at least five years and make available to the Department upon request. **[Reference: COMAR 26.11.01.05].**

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*Condition B applies to the Two (2) 32,429-gallon operating capacity hydrocarbon tanks*
B. Control of VOC Emissions
**NSPS**: The volatile organic compound storage vessels are each subject to NSPS 40 CFR §60 Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced After July 23, 1984, as applicable. DECP shall comply with the requirements of Subpart Kb through the use of a closed-loop system such that there are no emissions to the atmosphere from the four Propane Make-Up Tanks, and two Condensate

Storage Tanks. Other than the use of isopentane in the hydrocarbon condensate storage tanks, all other volatile organic liquids stored on site are exempt from the requirements of Subpart Kb. **[Reference: CPCN Case No. 9318, Condition A-X-2]**

**Compliance Demonstration:**
**NSPS**: The Permittee shall follow testing and monitoring procedures in accordance with 40 CFR §60.113b. **[Reference: 40 CFR §60.113b]** The Permittee shall maintain records of all periods of operation during which the flare pilot flame is absents. **[Reference: 40 CFR §60.115b(d)(2)]** The Permittee shall submit a report containing the measurements required by §60.18(f)(1),(2), (3), (4), (5) and (6) to the Administrator as required by 60.8 of the General Provisions. This report will be submitted within 6 months of the initial start-up date. The Permittee shall submit semiannual reports of all periods recorded under §60.115b(d)(2) in which the pilot flame was absent to the Administrator. **[Reference: 40 CFR §60.115b(d)(1) & 40 CFR §60.115b(d)(3)]**

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## COMPLIANCE SCHEDULE

Cove Point LNG terminal is currently in compliance with all applicable air quality regulations.

## TITLE IV – ACID RAIN

Not Applicable.

## TITLE VI – OZONE DEPLETING SUBSTANCES

Cove Point LNG terminal is not subject to Title VI requirements.

## SECTION 112(r) – ACCIDENTAL RELEASE

Cove Point LNG terminal is not subject to the requirements of Section 112(r).

## PERMIT SHIELD

Cove Point LNG terminal requested that a permit shield be expressly included in the Permittee's Part 70 permit. Permit shields are granted on an emission unit by emission unit basis. If an emission unit is covered by a permit shield, a permit shield statement will follow the emission unit table in Section IV - Plant Specific Conditions of the permit. In this case, a permit shield was granted for each emission unit covered by the permit.

## INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 4 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

**[For Areas I, II, V, and VI]**

The *affected fuel burning units* are subject to the following requirements:

COMAR 26.11.09.05A(1), which establishes that the Permittee 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.

Exceptions: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, start-up, 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 Distillate Fuel Oil]**

COMAR 26.11.09.07A(1)(c) which establishes that the Permittee may not burn, sell, or make available for sale any

distillate fuel with a sulfur content by weight in excess of 0.3 percent.

(2) No. 14 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

The *affected units* are subject to the following requirements:

(A) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(C) Exceptions:

(i) COMAR 26.11.09.05E(2) 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.

(ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes
(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(3) ✓ Space heaters utilizing direct heat transfer and used solely for comfort heat;

(4) No. 1 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

The *affected unit* is subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds (VOC) from cold degreasing operations by meeting the following requirements:

(a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 °C;

(b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;

(c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

The Permittee shall maintain on site for at least five (5) years, and shall make available to the Department upon request, the following records of operating data:

(a) Monthly records of the total VOC degreasing materials used; and

(b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.

(5) Containers, reservoirs, or tanks used exclusively for:

(a) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;

(b) No. 8 Storage of lubricating oils;

(c) No. 18 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(d) No. 1 Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;

(6) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

*For the following, attach additional pages as necessary:*

(7) any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):

No. 1 220-gallon storage tank NI-712 Odorant Masking Agent.

No. 10 Trace-erase electric catalyst for gas chromatograph analyzers.

No. 1 1,850-gallon propane North Flare Pilot backup storage tank

No. 1 1,000-gallon propane South Flare Pilot backup storage tank.

(8) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. 1 12,000-gallon aqueous ammonia (<20% Conc) storage tank 214F

No. 1 18,000-gallon aqueous ammonia (<20% Conc) storage tank 127F

No. 1 40,000-gallon aqueous ammonia (<20% Conc) storage tank 5V591

No. 1 800-gallon aqueous ammonia (<20% Conc) storage tank 5V405

## STATE ONLY ENFORCEABLE REQUIREMENTS

This section of the permit contains state-only enforceable requirements. The requirements in this section will not be enforced by the U.S. Environmental Protection Agency. The requirements in this section are not subject to COMAR 26.11.03 10 - Public Petitions for Review to EPA Regarding Part 70 Permits.

1. Applicable Regulations:

**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 constructed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

**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."

**COMAR 26.11.15.05** –Control Technology Requirements
"A person who complies with the ambient impact requirement in Regulation .06 of this chapter may not be affected by the amount of the installation's stack height that exceeds good engineering practice (GEP), or by any other dispersion technique.
(3) Unless an existing installation is controlled using T-BACT, the degree of emission limitation required in order to demonstrate compliance with Regulation .06 of this chapter may not be affected by the amount of the installation's stack height that exceeds good engineering practice (GEP), or by any other dispersion technique."

**COMAR 26.11.15.06** – Ambient Impact Requirement
(A) "Except as provided in §B(3) of this regulation, a person may not cause or permit the discharge of a toxic air pollutant listed in COMAR 26.11.16.07 from an existing installation or source if total allowable emissions of that TAP for the premises will unreasonably endanger human health.
(B) A person shall demonstrate compliance with §B(1) of this regulation using the procedures established in Regulation .07 of this chapter and COMAR 26.11.16.
(C) A person who owns or operates an existing premises shall meet the requirements of §B(1) and (2) of this regulation for each TAP listed in COMAR 26.11.16.07 by the applicable compliance dates listed in COMAR

26.11.16.07, or not later than 2 years after becoming subject to this chapter, whichever is later."

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**COMAR 26.11.40** – NOx Ozone Season Emission Caps for Non-trading Large NOx Units.
**COMAR 26.11.40.02** – Applicability
"**A**. The owner or operator of a non-trading large NOx unit, that is not a unit subject to the federal Cross State Air Pollution Rule NOx Ozone Season Group 2 Trading Program established under 40 CFR Part 97, Subpart EEEEE, shall comply with the ozone season NOx emission limitation, monitoring, record keeping, and reporting requirements for ozone season emissions of NOx set forth in this chapter.
**B**. The requirements of this chapter apply to a person who owns or operates a non-trading large NOx unit located at the affected sources in §C of this regulation.
**C**. Affected Sources and Units.
(1) American Sugar Unit No. C6;
(2) **Cove Point LNG Units No. Frame 5-1 (Turbine S009), Frame 5-2 (Turbine S010), Frame 7-A, Frame 7-B, Aux A and Aux B**;
(3) Luke Paper Mill Units No. 24, 25 and 26;
(4) National Institutes of Health Unit 5-1156; and
(5) A person who owns or operates a new unit subject to this chapter."

**COMAR 26.11.40.03** - NOx Ozone Season Emission Caps.
"A. The total combined NOx ozone season emissions for all non-trading large NOx units subject to this chapter may not exceed 1013 tons in accordance with the 40 CFR Part 97, Subpart E, Appendix C.
B. NOx Ozone Season Emission Caps.
(1) The total combined ozone season NOx emissions from all the affected units at an affected source as identified in Regulation .02C of this chapter may not exceed the NOx ozone season emission caps in §B(2) of this regulation.
(2) Table — NOx Ozone Season Emission Caps.

| **Affected Sources** | **NOx Ozone Season Emission Caps Beginning May 1, 2018** |
|---|---|
| American Sugar | 24 tons |
| **Cove Point LNG** | **214 tons** |
| Luke Paper Mill | 656 tons |
| National Institutes of Health | 23 tons |
| New Unit Set Aside | 96 tons |
| Total | 1013 tons |

**C**. $NO_x$ ozone season emission caps for new units shall be determined by the Department from available tonnage allocated to New Unit Set Aside under §B(2) of this regulation."

**COMAR 26.11.40.04** - Monitoring and Reporting Requirements.
"A. For non-trading large $NO_x$ units subject to this chapter, the owner or operator shall:
(1) Continuously monitor $NO_x$ emissions with a CEM system in accordance with 40 CFR Part 75, Subpart H and 40 CFR §51.121(i)(4); and
(2) Maintain records and submit reports regarding $NO_x$ emissions in accordance with 40 CFR Part 75.
**B**. The owner or operator of a non-trading large $NO_x$ unit subject to this regulation shall include emissions data obtained from a CEM system pursuant to §A of this regulation in the CEM quarterly reports submitted to the Department pursuant to COMAR 26.11.01.11E(2)."

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**COMAR 26.11.41** – Control of Methane Emissions from the Natural Gas Industry Authority.
**COMAR 26.11.41.02 -** Applicability**.**
The provisions of this chapter apply to an affected facility as that term is defined in Regulation .01B of this chapter.
**COMAR 26.11.41.03** - Leak Detection and Repair Requirements.
**A**. *Not Applicable.*
**B**. *Not Applicable.*
**C**. Cove Point Liquefied Natural Gas facility shall comply with:
(1) The leak detection and repair requirements as specified by the Climate Action Plan, which is defined, prepared, and approved under COMAR 26.09.02.06.B—E; and
(2) The leak detection and repair plan defined and approved under the Certificate of Public Convenience and Necessity, issued by the Maryland Public Service Commission on May 30, 2014, Order No. 86372, Case No. 9318, as amended on February 6, 2018, with Order No. 88565, and Errata on February 23, 2018, Order No. 88565, as amended.
**D**. *Not Applicable.*
**E**. If an owner requests approval, the Department may approve a new technology or alternative practice to identify leaking fugitive emissions components as an equivalent substitution for the requirements in §A or B of this regulation.

**COMAR 26.11.41.04** - Natural Gas-Powered Pneumatic Devices Methane Emission Control Requirements.
**A**. Beginning January 1, 2021, each continuous and intermittent bleed natural gas-powered pneumatic device shall comply with the leak detection and repair

requirements specified in Regulation .03 of this chapter, as applicable, when the device is idle and not controlling.
**Note: Cove Point does not have any continuous bleed natural gas-powered pneumatic devices on site.**

**COMAR 26.11.41.05** - Reciprocating Natural Gas Compressor Methane Emission Control Requirements.
**A**. All reciprocating natural gas compressor components at an affected facility shall comply with the leak detection and repair requirements in Regulation .03 of this chapter where applicable.
**B**. Control Measures for Reciprocating Natural Gas Compressor.
(1) By January 1, 2021, compressor vent stacks used to vent rod packing/seal emissions shall be controlled with the use of a vapor collection system as specified in Regulation .06 of this chapter; or
(2) By April 1, the reciprocating natural gas compressor rod packing/seal emission flow rate through the rod packing/seal vent stack shall be measured annually through direct measurement (high volume sampling, bagging, calibrated flow measuring instrument, etc.) while the compressor is operating at normal operating temperature.
(a) Direct measurements shall use one of the following methods:
(i) Vent stacks shall be equipped with a meter or instrumentation to measure the rod packing or seal emissions flow rate; or
(ii) Vent stacks shall be equipped with a clearly identified access port to measure individual or combined rod packing or seal emission flow rates.
(b) If the measurement is not obtained because the compressor is not operating for the scheduled test date, testing shall be conducted within 7 calendar days of resumed operation.
(3) A reciprocating natural gas compressor with a rod packing/seal with a measured emission flow rate that exceeds 1 standard cubic foot per minute, or a combined rod packing or seal emission flow rate that exceeds the number of compression cylinders multiplied by 1 standard cubic foot per minute shall:
(a) Be successfully repaired or replaced within 30 calendar days from the date of the exceedance; or
(b) Conduct natural gas compressor rod packing/seal emission flow rate measurements every 6 months or when the compressor resumes operation, whichever is later.
(4) A reciprocating natural gas compressor with a measured emission flow rate that exceeds 2 standard cubic feet per minute, or a combined rod packing or seal emission flow rate that exceeds the number of compression cylinders multiplied by 2 standard cubic feet per minute, shall be successfully repaired or replaced within 30 calendar days from the date of the exceedance.
**C**. Delay of Repair for Reciprocating Natural Gas Compressor.

(1) A delay of repair may occur provided the owner or operator provides documentation, upon request from the Department, that the delivery of parts or equipment required to make necessary repairs will take more than 30 days from the last emission flow rate measurement and that the parts have been ordered.
(2) A delay of repair to obtain parts or equipment may not exceed 60 days from the date of the last emission flow rate measurement unless the owner or operator notifies the Department, in writing, of the extended delay and provides an estimated time by which the repairs will be completed.
(3) A reciprocating natural gas compressor with a rod packing/seal emission flow rate measured above the standard specified in §B(4) of this regulation, and which has leaking parts deemed unsafe to monitor or requiring a facility shutdown, shall be successfully repaired by the end of the next planned process shutdown or within 12 months from the date of the flow rate measurement, whichever is sooner.

**COMAR 26.11.41.06** - Vapor Collection System and Vapor Control Devices.
**Note: Cove Point does not utilize any Vapor Collection systems or Vapor Control Devices to show compliance with this regulation.**

**COMAR 26.11.41.07** - Record-Keeping and Reporting Requirements.
**A**. Owners or operators of affected facilities shall maintain, submit as described in this section, and make available upon request by the Department a copy of records necessary to verify compliance with the provisions of this chapter, as follows:
(1) For each leak monitoring survey and audio, visual, and olfactory inspection conducted according to Regulation .03 of this chapter, owners and operators shall:
(a) Submit a report to the Department within **60 days of each leak monitoring survey** with the following information: (***For Cove Point it's impractical, therefore: 30 days of the end of each reporting quarter according to the approved LDAR Plan***)
(i) Date of the survey;
(ii) A list of each fugitive emission and repair;
(iii) Any deviations from the initial methane monitoring plan or a statement that there were no deviations from the initial methane monitoring plan;
(iv) Number and type of components for which fugitive emissions were detected;
(v) Number and type of difficult-to-monitor fugitive emission components monitored;
(vi) Instrument reading of each fugitive emissions component that requires repair when EPA Method 21 (40 CFR 60, Appendix A-7) is used for monitoring;
(vii) Number and type of fugitive emissions components that were not repaired;
(viii) Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair;

(ix) The date of successful repair of the fugitive emissions component; and
(x) Instrumentation used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding;
(b) Maintain, for a minimum of **5 years**, record of each leak monitoring survey along with the following information:
(i) Reports submitted according to §A(1)(a) of this regulation;
(ii) Beginning and end time of the survey;
(iii) Name of operator(s) performing survey;
(iv) Monitoring instrument used, including the manufacturer, model number, serial number, and calibration documentation;
(v) 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;
(vi) Fugitive emissions component identification when EPA Method 21 (40 CFR 60, Appendix A-7) is used to perform the monitoring survey;
(vii) Ambient temperature, sky conditions, and maximum wind speed at the time of the survey;
(viii) Any deviations from the initial methane monitoring plan or a statement that there were no deviations from the initial methane monitoring plan;
(ix) Proof that parts or equipment required to make necessary repairs, as required by this chapter, have been ordered;
(x) 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 leak monitoring survey at the time the fugitive emissions were initially found; and
(xi) Repair methods applied in each attempt to repair the fugitive emissions components;
(c) Post a quarterly report summary to a publicly available website of each leak monitoring survey, including the information required in §A(1)(a) of this regulation, **60 days after the leak monitoring survey**; and (***For Cove Point it's impractical, therefore: 30 days of the end of each reporting quarter according to the approved LDAR Plan***)
(d) Maintain records of audio, visual, and olfactory inspections for at least 5 years from the date of inspection.
(2) *Not Applicable.* **Note: Cove Point does not have any continuous bleed natural gas-powered pneumatic devices on site.**
(3) For each reciprocating natural gas compressor, owners and operators shall:
(a) Maintain a record of each rod packing leak concentration measurement found above the minimum leak threshold and report annually beginning **April 1, 2021**, for at least **5 years** from the date of each leak concentration measurement;
(b) Maintain a record of each rod packing or seal emission flow rate measurement and report annually beginning April 1, 2021, for at least 5 years from the date of each emissions flow rate measurement;

(c) Maintain a record that documents the date(s) and hours of operation a compressor is operated in order to demonstrate compliance with the rod packing leak concentration or emission flow rate measurement in the event that the compressor is not operating during a scheduled inspection for at least 1 calendar year;
(d) Maintain records that provide proof that parts or equipment required to make necessary repairs required by this chapter have been ordered;
(e) Report annually the cumulative number of hours of operation or the number of months since initial startup or the previous reciprocating compressor rod packing replacement, whichever is later, beginning **April 1, 2021**;
(f) If applicable, submit a statement that emissions from the rod packing are being routed to applicable vapor control system under Regulation .06 of this chapter;
(g) Report records of deviations from this chapter that occurred during the reporting period annually, beginning **April 1, 2021**; and
(h) Maintain a record of purchase orders, work orders, or any in-house or third-party reports produced or provided to the affected facility necessary to demonstrate compliance with the delay of repair provisions of this chapter for at least 5 years.
**B**. Blowdown Events and Reports.
(1) Within 90 days of the effective date of this chapter, affected facilities shall submit a blowdown notification plan to the Department for approval of any blowdown event in excess of 1,000,000 standard cubic feet. (*Completed-Blowdown Plan July 2021 Rev1*)
(2) The blowdown notification plan according to §B(1) of this regulation shall include:
(a) The notification format (for example, website, email, robocall, text message, social media announcement, etc.) to local authorities, the Department, and interested parties for blowdown emissions in excess of 1,000,000 standard cubic feet;
(b) A public outreach plan to inform interested parties of the availability to be notified of blowdown events in excess of 1,000,000 standard cubic feet;
(c) The affected facility's responsible personnel for blowdown notifications; and
(d) A sitemap of the facility with clearly marked designated area(s) for blowdown emissions in excess of 1,000,000 standard cubic feet.
(3) For any blowdown event in excess of 1,000,000 standard cubic feet, affected facilities shall make information publicly available in accordance with the facility's approved blowdown notification plan, including notification to the Department, at least 7 days prior.
(4) For any blowdown event in excess of 1,000,000 standard cubic feet that is scheduled less than 7 days prior to the blowdown event, affected facilities shall, as soon as practicable:

(a) Make information publicly available in accordance with the facility's approved blowdown notification plan; and
(b) Provide an explanation to the Department of the reason for the blowdown event.
(5) For any emergency or unplanned blowdown event in excess of 1,000,000 standard cubic feet, affected facilities shall make information publicly available in accordance with the facility's approved blowdown notification plan and notify the Department within 1 hour of the emergency or unplanned blowdown event.
(6) When safety concerns preclude a facility from providing prior notification of an emergency or unplanned blowdown under §B(5) of this regulation, the facility shall send notice to the Department within 24 hours of the blowdown event indicating the reason(s) why prior notice was not possible.
(7) Affected facilities shall report the following information to the Department of blowdown emissions in excess of 50 cubic feet within the facility's fence line annually by April 1 of each year:
(a) Date and type (that is, planned or emergency) of each blowdown event;
(b) Methane emissions in metric tons released from each blowdown event; and
(c) Annual methane emissions in metric tons from all blowdown events.
(8) Methane emissions shall be calculated according to procedures in 40 CFR Part 98, Subpart W, §98.233.
**C**. Greenhouse Gas Emissions Reporting.
(1) Owners and operators of affected facilities shall report methane, carbon dioxide, and nitrous oxide mass emissions to the Department annually by April 1 of each year.
(2) Owners and operators of affected facilities shall follow the procedures for emission calculation, monitoring, quality assurance, missing data, record keeping, and reporting that are specified in 40 CFR Part 98, Subpart C, and 40 CFR Part 98, Subpart W.
(3) When reporting to the Department, owners and operators of affected facilities shall expand the fugitive emissions reporting requirements of 40 CFR Part 98, Subpart W, to include a Microsoft Excel format list providing calculations summarized by category under 40 CFR §98.232(e)—(h) as applicable.
(4) The reporting threshold in 40 CFR §§98.2, 98.31 and 98.231 of 25,000 metric tons of $CO_2$ equivalent does not exempt an affected facility from following the requirements of this section.
**D**. All required reports shall be submitted to the Industrial Compliance Division in written or electronic format.

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2. Record Keeping and Reporting:
   The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of

emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

(a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

(b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.