Pamela F. Faggert
Chief Environmental Officer and Senior Vice President-Sustainability

Dominion Energy Services, Inc.
5000 Dominion Boulevard, Glen Allen, VA 23060

Pamela.Faggert@dominionenergy.com

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February 14, 2018

BY U.S. MAIL, RETURN RECEIPT REQUESTED
7017 1070 0000 4417 2201

Mr. Angelo Bianca
Deputy Director
Air and Radiation Management Administration
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

RE: Dominion Energy Cove Point LNG, LP
Greenhouse Gas Monitoring and Repair Plan Update

Dear Mr. Bianca:

Dominion Energy Cove Point LNG, LP (DECP) is submitting the following Updated Greenhouse Gas Monitoring and Repair Plan (GHG Plan) for the Cove Point LNG Import Facility in compliance with the Maryland Department of the Environment's (MDE's) November 17, 2017 approval of the DECP Climate Action Plan and in response to MDE's February 9, 2018 correspondence. This GHG Plan is submitted for MDE review and approval. Please note that DECP intends to implement the attached GHG Plan in the second quarter 2018, as referenced in the MDE approved DECP Climate Action Plan.

If you require any additional information, please contact Joseph Pietro at (804) 273-4175 or via email at Joseph.J.Pietro@dominionenergy.com.

Sincerely,

Pamela Faggert for

Pamela F. Faggert

cc: Brian Hug, MDE (brian.hug@maryland.gov)
Christopher Beck, MDE (christopher.beck@maryland.gov)
Luke Wisniewski, MDE (luke.wisniewski@maryland.gov)
Duane King, MDE (duane.king@maryland.gov)

jjp

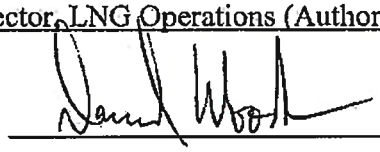
Document Certification

Facility Name:	Dominion Energy Cove Point LNG, LP (formerly known as Dominion Cove Point LNG, LP)
Facility Location:	2100 Cove Point Road, Lusby, Maryland 20657
County:	Calvert
Type of Submittal:	Dominion Energy Cove Point LNG, LP: Greenhouse Gas Monitoring and Repair Plan Update

Certification: As required under COMAR 26.11.03, 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.

Name of Responsible Official: Daniel L. Woods

Title: Director, LNG Operations (Authorized Representative)

Signature: 

Date: 2/13/18

CO_2 Authorized Account Representative Document Certification

Facility Name:	Dominion Energy Cove Point LNG, LP (formerly known as Dominion Cove Point LNG, LP)
Facility Location:	2100 Cove Point Road, Lusby, Maryland 20657
County:	Calvert
Type of Submittal:	Dominion Energy Cove Point LNG, LP: Greenhouse Gas Monitoring and Repair Plan Update

Certification: As required under COMAR 26.09.01.04(G), 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.

Name of Responsible Official: Daniel L. Woods

Title: Director, LNG Operations (Alternate CO_2 Authorized Account Representative)

Signature: Daniel Woods

Date: 2/13/18

Dominion Energy®

Dominion Energy Cove Point LNG, LP
Lusby, Maryland

Greenhouse Gas Monitoring and Repair Plan

Cove Point LNG Import Facility

February 2018

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1 INTRODUCTION

1.1 PURPOSE

Dominion Energy Cove Point LNG, LP (DECP) operates the Cove Point Liquefied Natural Gas (LNG) Storage and Terminal (the Import Facility) located in Lusby, Maryland. DECP is required under the DECP Climate Action Plan (CAP) to implement this Greenhouse Gas (GHG) Monitoring and Repair Plan (herein referred to as "the GHG Plan") to monitor and reduce fugitive GHG emissions from the Import Facility equipment. The scope of this document does not cover equipment associated with the Liquefaction Project (Export Facility), which is collocated with the Import Facility. The GHG Plan outlines recommended procedures and practices to be followed to monitor components for GHG emissions from the Import Facility equipment, as well as relevant repair procedures. This GHG Plan was developed using sound and reasonable engineering/scientific principles and overall aims to identify and reduce GHG emissions, such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), from the Import Facility.

DECP is required, as part of the CAP, to maintain a GHG Plan for the Import Facility in order to minimize GHG emissions from the existing Import Facility equipment. The CAP was submitted to MDE on November 7, 2017 and subsequently approved by MDE on November 17, 2017. The GHG Plan is not related to the actual reporting of GHG emissions under EPA's Greenhouse Gas Reporting Rule of 40 CFR Part 98.

DECP maintains a separate leak detection and repair (LDAR) Monitoring Plan which applies to the Liquefaction Project Export Facility piping and equipment to evaluate applicable components for leaks of volatile organic compounds (VOCs), GHGs, and toxic air pollutants (TAPs), as required by Certificate of Public Convenience and Necessity (CPCN) Order No. 86372 issued May 30, 2014. The GHG Plan for the Import Facility is separate from the LDAR Monitoring Plan that is required for the Liquefaction Project Export Facility. The GHG Plan applies only to the Import Facility equipment and specifically applies only to GHG fugitive emissions.

The roles and responsibilities of personnel under this GHG Plan are outlined in Table 1.1.

Table 1.1 GHG Plan Roles and Responsibilities

Role	Person Responsible
Promotes the best practices laid out in the GHG Plan by ensuring necessary and appropriate resources have been allocated.	Director, LNG Operations
Management of component repairs/replacements.	Maintenance Manager
Performs component repairs/replacements.	Maintenance Personnel
Performs audio, visual, and olfactory (AVO) inspections.	Designated Operations Personnel (multiple)

Performs Optical Gas Imaging (OGI) instrument monitoring.	Third-Party Monitoring Contractor
Daily oversight and management of monitoring contractor.	GHG Plan Coordinator
Program Oversight	Corporate Project Supervisor Station Environmental Coordinator

2 GHG MONITORING AND REPAIR PROCESS

The primary components of the GHG Plan are described in this section.

2.1 LEAK MONITORING AND INSPECTION TECHNIQUE

The leak monitoring and inspection techniques that may be used under the GHG Plan are as follows:

- OGI Monitoring – As the primary method to monitor components for fugitive GHG emissions, an OGI camera will be used. OGI monitoring will be performed on a quarterly basis, based on generally accepted industry standards.
- AVO Inspection – Leaks of GHG fugitive emissions may also be observed via the use of sensory methods (i.e., sound, sight, and/or smell) during operator rounds, and will be conducted on a monthly basis, based on general guidance from COMAR 26.11.19.16C(1).
- EPA Method 21 Soap Bubble Test – After the Import Facility attempts to repair leaking components, the Soap Bubble Test, conducted in accordance with EPA Method 21 procedures, may be used to confirm that the repair attempts were successful.

2.2 LEAK DEFINITIONS

Since DECP is implementing the practices laid out in this GHG Plan as a site-specific effort under the DECP CAP to reduce GHG emissions, DECP will generally follow the leak definitions for each monitoring and inspection technique as provided below:

- OGI Monitoring – A leak is defined as any emissions observed through the OGI camera.
- AVO Inspection – A leak is defined as any audible, visible, or olfactory indication of a leak (e.g., visual indications of liquids dripping).
- EPA Method 21 Soap Bubble Test – A leak exists if the formation of bubbles is observed when using the soap bubble test to confirm a repair.

2.3 DIFFICULT-TO-ACCESS AND UNSAFE-TO-ACCESS COMPONENTS

Components may not be monitored and/or repaired if the components cannot be accessed in a routine and safe manner. Determinations of difficult-to-access (DTA) and unsafe-to-access (UTA) components will be made on a case-by-case basis utilizing input from Environmental, Operations, and Maintenance personnel. If leaks are observed during OGI monitoring for components determined to be DTA or UTA, repairs will be made when it is possible and safe to do so. Components that are deemed to be DTA or UTA will be recorded, including the reasoning for the DTA or UTA determination, and the appropriate records will be maintained. DTA and UTA components awaiting repair will be placed on delay of repair, as referenced in Section 4.3.

3 FIELD PROCEDURES

Monitoring for fugitive emissions of GHGs may be performed at the Import Facility as discussed in the following sections.

3.1 OGI MONITORING

OGI monitoring will be performed on a quarterly basis by a third-party contractor. The OGI monitoring contractor is responsible for maintaining the OGI camera according to manufacturer's recommendations and performing OGI monitoring according to generally accepted industry standards. The repair procedures applicable to leaks identified during OGI monitoring are discussed in Section 4.

3.2 AVO INSPECTIONS

AVO inspections involve the use of sensory methods (i.e., sound, sight, and/or smell) to identify a potential leak to the atmosphere. Leaks may also be observed via AVO methods during routine operator rounds at the Import Facility. During AVO inspections, facility personnel will check for AVO indications of a leak (e.g., liquids dripping from a component) using the following best practices:

- Observe components that may have visible leakage including dripping, spraying, misting, clouding, puddling, or staining.
- Listen for abnormal hissing or other sounds that may indicate a leak. Any required hearing protection should not be removed.
- Use the olfactory senses to detect abnormal odors that may indicate a leak of process fluids. Olfactory observations should be performed in the course of normal breathing.

The repair procedures applicable to leaks identified during AVO inspections are discussed in Section 4.

3.3 EPA METHOD 21 SOAP BUBBLE TEST

The EPA Method 21 Soap Bubble Test may be used to confirm that repair attempts to a leaking component were successful. To perform the EPA Method 21 Soap Bubble Test, the Import Facility will apply a soap solution to the component of interest. The soap solution will be a commercially available leak detection solution (e.g., Snoop) or will be prepared using concentrated detergent (e.g., common dishwashing detergent) and water. A pressure sprayer or squeeze bottle will be used to dispense the solution onto the component of interest. Then, potential leak sites will be observed to determine if bubbles are formed. If no bubbles are observed, the component is not leaking, and the repair attempt was successful. The EPA Method 21 Soap Bubble Test will not be used on components, or portions thereof, that have continuously moving parts, have surface temperatures that will boil or freeze the soap solution, have open areas to the atmosphere that the soap solution cannot bridge, or that exhibit evidence of liquid leakage. If bubbles are observed, the component is still leaking. The repair procedures applicable to leaks identified during the EPA Method 21 Soap Bubble Test are discussed in Section 4.

4 LEAK IDENTIFICATION AND REPAIR PROCEDURES

The procedures for leak identification and repair are outlined in this section.

4.1 LEAK IDENTIFICATION AND DOCUMENTATION

Components found to be leaking through the procedures described in Section 3 will be initially tagged, if possible (e.g. a pressure relief valve on top of an LNG tank is not expected to be tagged), with a weatherproof and readily visible identification tag (i.e., leaker tag). A leaker tag is still required to be completed independent of the ability to physically hang the tag. The leaker tag is meant to identify leaking equipment for the appropriate Maintenance personnel, but more importantly, is the mechanism for the leak to be entered into SAP. The identified leak will then be logged into an electronic database. A notification is entered into SAP, which notifies the GHG Plan Coordinator of the leak. The GHG Plan Coordinator will track the leak using an electronic database. Once the leak is entered into SAP, any leaker tag need not be maintained. The SAP notification will include the component tag number, if applicable, and the leaking component location description (e.g., upstream flange on the suction isolation valve of equipment ID XXX). As a best practice, the SAP notification should include the following:

- Unique component tag number, if applicable;
- Description of the leaking component's location;
- Date and time leak was discovered; and
- Date and time a first repair attempt was made and a note if the first attempt was successful.

4.2 LEAK REPAIRS

When a leak is identified, it will be repaired according to the procedures outlined below. Repairs at the Import Facility are typically performed by Maintenance personnel under the direction of the Maintenance Manager. DECP strives to repair leaking components in accordance with the repair time frames provided in the sections below. Note that the leak repair time frames discussed below are guidelines and not required by regulation. DECP aims to perform work within these time frames as a best management practice in order to address all GHG leaks in a timely manner. If additional time is required, Maintenance personnel should document the reason and the updated timeline for repair in an electronic database.

Repairs to identified leaks will be documented in an electronic database.

4.2.1 First Attempt at Repair

The actions taken during a first attempt at repair may vary depending on the situation (type of component, location of the leak on the component, etc.). A first attempt at repair may include, but is not limited to, the following:

- Tightening the bonnet bolts;
- Replacing the bonnet bolts;
- Tightening the packing gland nuts; and,

- Injecting lubricant into the lubricating packing.

These actions are provided as guidance only. Based on operating conditions and safety concerns, the appropriate action to be taken during a first attempt at repair will be at the sole discretion of Operations personnel.

First repair attempts of equipment required to be insulated for operations must be postponed until the repair can be done in a safe manner. This also applies to any component that is DTA or UTA during operations. Each repair currently postponed due to the equipment being required to be insulated for operation will be included in the CAP annual progress report due February 28th of each year.

4.2.2 Leaks Identified via OGI Monitoring

First attempts at repair for leaking equipment found by OGI monitoring should be performed within five (5) calendar days after each leak is detected, if it is safe to do so. If the first repair attempt is not successful, efforts should be made to repair the component within 15 calendar days after initial leak identification, if possible. If repair is not feasible (e.g. unavailability of parts, delay of repair, operating conditions, safety concerns, etc.) within this time frame, the component may be placed on the delay of repair list, as discussed in Section 4.3. A follow-up leak repair verification (e.g., EPA Method 21 Soap Bubble Test or OGI monitoring) will be performed to evaluate the success of each repair attempt.

4.2.3 Leaks Identified via AVO Inspection

For leaking components identified by AVO inspection, a first attempt at repair should be performed within 48 hours after initial leak identification, if it is safe to do so. If the first attempt at repair is not successful or is not safe to perform, the component should be repaired within 15 calendar days after initial leak identification, if possible. If repair is not feasible (e.g. unavailability of parts, delay of repair, operating conditions, safety concerns, etc.) within this time frame, the component may be placed on the delay of repair list, as discussed in Section 4.3. A follow-up leak repair verification (e.g. EPA Method 21 Soap Bubble Test or OGI monitoring) will be performed to evaluate the success of each repair attempt.

4.3 DELAY OF REPAIR

Components that cannot be repaired within the target time frames provided above may be placed on the delay of repair list as follows:

- Components that are isolated from the process and do not remain in service (i.e., no process fluid remaining within the piping) may be placed on the delay of repair list indefinitely.
- Components remaining in service, the repair of which would require a process unit shutdown, may be placed on the delay of repair list until the next scheduled shutdown.
- Components for which necessary parts are unavailable may be placed on the delay of repair list until these parts are ordered and received.
- Components in cryogenic service will be placed on delay of repair if it is unsafe to work on the component until the next planned outage.

- Leaks identified on DTA and UTA components will be placed on delay of repair until repairs can be made safely. A list of the DTA and UTA components currently on delay of repair will be included in the CAP annual progress report due February 28th of each year, including the reasoning of the DTA or UTA determination and the schedule for each repair.

As a best practice, DECP will elect to utilize SAP, an electronic database, or other program approved by Dominion Energy Environmental Services to track delay of repair items. The final decision for placing a component on the delay of repair list is the responsibility of Maintenance personnel and will be made following coordination with the Station Environmental Coordinator and the GHG Plan Coordinator.