UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE ADMINISTRATOR

IN THE MATTER OF	)	PETITION FOR OBJECTION
Clean Air Act Title V Operating Permit No. 24-009-0021	)	Permit Number 24-009-0021
Issued to Cove Point LNG, L.P.	)	
Issued by the Maryland Department of Environmental Management	)	

PETITION REQUESTING THAT THE ADMINISTRATOR OBJECT TO THE ISSUANCE OF PROPOSED TITLE V PERMIT NO. 24-009-0021 FOR COVE POINT LNG, L.P.'S COVE POINT LIQUEFIED NATURAL GAS TERMINAL

Pursuant to section 505(b)(2) of the Clean Air Act, 42 U.S.C. § 7661d(b)(2), and 40 C.F.R. § 70.8(d), the Environmental Integrity Project and Chesapeake Climate Action Network (collectively, "Petitioners") respectfully petition the Administrator of the U.S. Environmental Protection Agency ("Administrator" or "EPA") to object to the Title V Operating Permit #24-009-0021 ("Renewal Permit") issued by the Maryland Department of Environmental Management ("MDE") on September 15, 2022 to the Cove Point LNG Terminal ("Terminal") owned and operated by Cove Point LNG, L.P.,[1] ("Cove Point") in Calvert County, Maryland. As required, Petitioners are filing this Petition with the Administrator via the Central Data Exchange and providing copies via certified U.S. mail to MDE and Cove Point.

As discussed further below, EPA must object to the Renewal Permit because it does not include monitoring and reporting requirements sufficient to assure compliance with all applicable requirements of the Clean Air Act. Specifically, the Renewal Permit modifies Cove

[1] Formerly known as Dominion Energy Cove Point LNG, L.P.

Point's existing Title V permit to incorporate the "Liquefaction Project," an expansion project enabling the Terminal to export liquified natural gas, which was originally authorized for construction in 2014 under a Certificate of Public Necessity and Convenience. *See* Public Service Commission of Maryland. Order 86372, Case Number 9318 ("CPCN 9318 Order 86372"). CPCN 9318 established a project-wide emission limit of 124.2 tons per year for PM_{10} (filterable and condensable)[2] applicable to emissions from all units comprising the Liquefaction Project. Though the Renewal Permit incorporates these project-wide limits (as required), it does not include any testing, monitoring, or reporting requirements for condensable particulate matter emissions from the Frame 3 and Frame 5 Turbines—which are identified by CPCN 9318 as significant units comprising the Liquefaction Project and plainly subject to its project-wide emission limits for PM_{10}. The Renewal Permit also does not include testing, monitoring, or reporting requirements at the Frame 3, Frame 5, and Solar Titan Turbines sufficient to assure compliance with the Liquefaction Project's 12-month emission limits for PM_{10} or filterable PM.

Petitioners note that MDE **first** provided them with notice of this permit decision, and a copy of the Renewal Permit and Response to Comments, on October 19, 2022—which left Petitioners only 8 days to review the Renewal Permit, determine whether a petition for objection was appropriate, and submit this petition for objection.

I. PETITIONERS

The Environmental Integrity Project ("EIP") is a non-profit, non-partisan watchdog organization founded to advocate for the effective enforcement of environmental laws, with a specific focus on the Clean Air Act and large stationary sources of air pollution such as Cove Point. EIP has three goals: (1) to illustrate through objective facts and figures how the failure to

[2] The Liquefaction Project is also subject to a $PM_{2.5}$ limit of 124.2 tons per year. As effectively all PM_{10} emissions from these units are expected to also be $PM_{2.5}$, PM_{10} is used to refer to both PM_{10} and $PM_{2.5}$ throughout this Petition.

enforce and implement environmental laws increases pollution and harms public health; (2) to hold federal and state agencies, as well as individual corporations accountable for failing to enforce or comply with environmental laws; and (3) to help local communities obtain protections guaranteed by environmental laws. The Environmental Integrity Project is headquartered in Washington, D.C., and has additional offices and programs in Austin, Texas.

Chesapeake Climate Action Network ("CCAN") is a grassroots nonprofit organization dedicated exclusively to fighting the effects of global warming in the states of Maryland, Virginia, and Washington, DC. CCAN's main organizational objectives are to build and mobilize a powerful, diverse grassroots movement within the Chesapeake Bay region to call for state, national, and international policies that will put the region on the path to climate stability, to inspire action in neighboring states and regions nationwide, and to protect the most vulnerable communities in the region from the worst impacts of climate change.

II. FACILITY DESCRIPTION AND PERMITTING HISTORY

The Terminal is a liquefied natural gas (LNG) storage and terminal facility located on the western shore of the Chesapeake Bay, in Calvert County, Maryland. The Terminal receives, stores, and vaporizes imported LNG from sea-going tankers and then transports vaporized LNG as pipeline-quality natural gas to interconnection points with transmission and distribution points throughout the mid-Atlantic region. The Terminal is comprised of several types of emission units, including combustion turbines, submerged vaporizers, water-ethylene glycol heaters, boilers, emergency generators, fire pumps, and vent heaters.

A. 2013 Title V Permit

Prior to the Renewal Permit, the LNG storage and terminal facility (or "Import Facility") operated under Title V Permit 24-009-00021, issued by MDE on November 1, 2013 ("2013

Permit"). The 2013 Permit only covered operation of units comprising the Import Facility, which included (in relevant part) the Terminal's three General Electric Frame 3 combustion turbines (emission unit nos. S001 – S003), two GE Frame 5 turbines (emission unit nos. S009-S010), and one Solar Titan turbine (emission unit no. S021). 2013 Permit at 6-7. The 2013 Permit established a PM (filterable) limit of 0.0066 lbs/mmBtu applicable to each of the Frame 3 and Frame 5 turbines, as well as a requirement that Cove Point test "at least one of the combustion turbines" once every five years. 2013 Permit Conditions 1.1.B, 1.2.B, 5.1.B, 5.2.B. For the Solar Titan turbine, the 2013 Permit established a PM_{10} emission limit of 0.0066 lb/mmBtu, and a requirement to perform a stack test once every five years to demonstrate compliance with this limit. *Id.* at Conditions 10.1.B, 10.2.B.

B. Certificate of Public Convenience and Necessity No. 9318

Cove Point subsequently sought authorization for an expansion project, known as the "Liquefaction Project," intended to install facilities enabling the Terminal to export LNG. On May 30, 2014, Cove Point was issued a Certificate of Public Convenience and Necessity for the construction of the Liquefaction Project. *See* Exhibit 1, Public Service Commission of Maryland. Order 86372, Case Number 9318 ("CPCN 9318 Order 86372"). Condition A-III-4 of CPCN 9318 Order 86372 established (in relevant part)[3] the following 12-month rolling emission limits applicable to "[e]missions for all sources identified as part of the [Liquefaction Project]":

Pollutant	Project-wide Emission Limit (tons per year)
Particulate Matter (PM) – Filterable	55.7
Particulate Matter less than 10 microns (PM10) – Filterable and Condensable	124.2

[3] Condition A-III-4 also includes project-wide limits for Nitrogen Oxides, Carbon Monoxide, Volatile Organic Compounds, Greenhouse Gas, and Formaldehyde, which are not discussed in this Petition.

Condition A-III-4 explicitly states that the project-wide PM_{10} limit of 124.2 tpy includes both filterable and condensable PM. Condition A-I-3 of CPCN 9318 Order 86372 lists all of the emission units that comprise the Liquefaction Project, and expressly included the two existing GE Frame 5 turbines (emission units S009 & S010). *Id.* at Condition A-I-3(g).[4] In order to demonstrate compliance with these annual limits, Cove Point is required to submit quarterly reports which (in relevant part) summarize monthly and consecutive rolling 12-month emissions for each pollutant separately for each emission unit and total emissions of those pollutants for all Liquefaction Project sources. CPCN 9318 Order 86372, Condition A-III-8.

Shortly after the issuance of CPCN 9318 Order 86372, Cove Point requested an amendment to CPCN 9318 seeking (in relevant part) to include the Frame 3 turbines and Solar Titan turbine as supplemental power sources for the Liquefaction Project, in order to expand its operational flexibility. CPCN 9318 was subsequently modified on February 23, 2018 to revise the definition of the Liquefaction Project in Condition A-I-3 to include the three existing Frame 3 turbines and the Solar Titan turbine. *See* Exhibit 2, Public Service Commission of Maryland. Order 88565, Case Number 9318 (Feb. 23, 2018) ("CPCN 9318 Order 88565"). CPCN 9318 Order 88565 did **not** modify any of the Liquefaction Project's project-wide emission limits previously established by CPCN 9318 Order 88565, and the Public Service Commission's opinion expressly noted that Cove Point was not proposing any increase "in the project-wide emission limits under Condition A-III-4. Rather, the amended Condition would impose the same project-wide restrictions on the GE Frame 3 and Solar Titan turbines, when used for the Project, as are currently imposed on the GE Frame 5 turbines." *Id.* at 8; *see also id.* at 13 (noting Cove

[4] In addition, Maryland's State Implementation Plan defines "particulate matter" to mean "any material… that is or has been airborne, and exists as a solid or liquid at standard conditions," and PM_{10} to mean any particulate matter ten microns or less in diameter, which includes both condensable and filterable particles. COMAR 26.11.01.01.B.(29), (32).

Point "will need to restrict its usage of the Frame 3 and Solar Titan turbines in order to comply with the project-wide annual emission limits.").

C. The Renewal Permit

Cove Point was required to submit an application for a significant permit modification incorporating the terms of CPCN 9318 into the Terminal's Title V permit within 12 months of the commencement of operation of the Liquefaction Project. *See* COMAR 26.11.03; CPCN 9318, Condition A-I-6. In the meantime, MDE issued Cove Point State Permit to Operate No. 009-0021 on June 21, 2018, which temporarily authorized the operation of the Liquefaction Project sources. ("State Permit 009-0021"). On September 27, 2018, Cove Point submitted an application for renewal of Title V permit 24-009-00021, which included a request to modify the permit to incorporate the terms of CPCN 9318 and State Permit 009-0021 into its Title V operating permit.

On February 25, 2022, MDE published notice of its intent to issue the Renewal Permit. Petitioners timely submitted comments on the draft permit on March 25, 2022, which raised the same concerns stated in this Petition. *See* Exhibit 3, Petitioners' Comments on Proposed Renewal Permit (March 25, 2022) ("Comments"). On July 14, 2022, MDE forwarded the proposed Renewal Permit and Response to Comments to EPA for its statutory 45-day review period. *See* Exhibit 4, Response to Comments ("RTC"). EPA's 45-day review period ran from July 14, 2022, to August 28, 2022. EPA did not object to the Renewal Permit, and MDE subsequently issued the Renewal Permit on September 15, 2022. Because EPA failed to object to the Renewal Permit during its review period, members of the public have 60 days from the end of EPA's review period to petition EPA to object. This 60-day period began on August 29, and thus the deadline for such petitions is October 28, 2022. Accordingly, this Petition is timely filed.

Petitioners note that MDE informed Petitioners of the permit decision and provided them with a copy of the proposed Renewal Permit and Response to Comments for the **first time** on October 19, 2022—97 days after the Renewal Permit was forwarded to EPA for review and only 8 days ahead of the October 28 deadline for petitions. *See* Exhibit 5, emails from Shannon Heafey (MDE) to Leah Kelly (EIP) (Oct. 19, 2022).

Condition 25.1 of the Renewal Permit incorporates the project-wide 12-month rolling emission limits established by CPCN 9318, including the annual limits of 55.7 tpy for PM Filterable and 124.2 tpy for PM_{10} (filterable and condensable). Condition 25.0 expressly defines the Liquefaction Project to include the Frame 3, Frame 5, and Solar Titan turbines. Conditions 25.5 and 25.6 of the Renewal Permit incorporate CPCN 9318 Condition A-III-8's requirement that Cove Point submit quarterly reports summarizing monthly and consecutive rolling 12-month emissions separately for each emission unit and total emissions of those pollutants for all Liquefaction Project source in order to demonstrate compliance with the annual limits.[5]

The Renewal Permit retains the PM (filterable) limit of 0.0066 lbs/mmBtu applicable to each of the Frame 3 and Frame 5 turbines and requirement to test "at least one of the combustion turbines" once every five years established by the 2013 Permit, Renewal Permit Conditions 1.1.B, 1.2.B, 5.1.B, 5.2.B. As discussed further below, these separate limits on filterable PM emissions from the Frames 3 and 5 Turbine do not (and cannot) eliminate the requirement to ensure that PM_{10} emissions (comprised of filterable and condensable particulates) from Frames 3 and 5, together with emissions from other units that comprise the Liquefaction Project, do not

[5] There appear to be multiple typographical errors in Conditions 25.5 and 25.6. Specifically, each subparagraph of Condition 25.5 (reporting requirements for the project-wide limits) requires Cove Point to submit quarterly reports "containing information listed in Table IV-25, Condition H"—which does not exist. Petitioners presume this citation refers to the last paragraph of Condition 26.6 ("The Permittee shall submit a quarterly report…"), which incorporates the quarterly report requirement from CPCN 9318 Order 86372, Condition A-III-8.

exceed 124.2 tons per year. The Renewal Permit also retains the Solar Titan turbine's PM_{10} (filterable and condensable) emission limit of 0.0066 lb/mmBtu and requirement to perform a stack test once every five years to demonstrate compliance with this limit. *Id.* at Conditions 10.1.B, 10.2.B.

III. STANDARD OF REVIEW FOR TITLE V PETITIONS

Title V permits, which must list and assure compliance with all federally enforceable requirements that apply to each major source of air pollution, are the primary method for enforcing and assuring compliance with the Clean Air Act's pollution control requirements for major sources. 57 Fed. Reg. 32250, 32258 (July 21, 1992). One of the primary purposes of Title V is to "enable the source, States, EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements. Increased source accountability and better enforcement should result." *Id*. at 32251.

It is the Title V permitting authority's responsibility to ensure that a proposed permit "'set[s] forth'" conditions sufficient "'to assure compliance with all applicable requirements'" of the Clean Air Act. *In the Matter of Sandy Creek Services, LLC, Sandy Creek Energy Station, McLennan County, TX*, Order on Petition No. III-2018-1 (June 30, 2021) ("Sandy Creek Order") at 12 (*quoting* 42 U.S.C. § 7661c(c)). The permitting authority's rationale for any proposed permit conditions must be clear and documented in the permit record, 40 C.F.R. § 70.7(a)(5), and "permitting authorities have a responsibility to respond to significant comments" received on a proposed permit. *In the Matter of CITGO Refining and Chemicals Co., L.P., West Plant, Corpus Christi, TX*, Order on Petition No. VI-2007-01 (May 28, 2009) ("CITGO Order") at 7.

EPA must object to any Title V permit that fails to include or assure compliance with all applicable requirements of the Clean Air Act. 40 C.F.R. § 70.8(c). "Applicable requirements"

include any requirements of a federally enforceable SIP and any preconstruction requirements that are incorporated into the Title V permit. *In the Matter of Pac. Coast Bldg. Prods., Inc., Permit No. A00011, Clark County, NV* (Dec. 10, 1999) ("Pac. Coast Order") at 7 ("applicable requirements include the requirement to obtain preconstruction permits that comply with preconstruction review requirements under the Act, EPA regulations, and State Implementation Plans."). If EPA does not object to a Title V permit, "any person may petition the Administrator within 60 days after the expiration of the Administrator's 45-day review period to make such objection." 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). The Administrator "shall issue an objection" if the petitioner demonstrates "that the permit is not in compliance with the requirements of [the Clean Air Act], including the requirements of the applicable implementation plan." 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(1). The Administrator "shall grant or deny such petition within 60 days after the petition is filed." 42 U.S.C. § 7661d(b)(2).

IV. GROUNDS FOR OBJECTION

A. The Renewal Permit does not include any testing, monitoring, or reporting requirements for PM_{10} emissions from the Frame 3 or Frame 5 Turbines—even though those units are subject to the Liquefaction Project's annual PM_{10} limit.

1. Applicable Requirements

"Each permit issued under [Title V] shall set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions." 42 U.S.C. § 7661c(c). It is MDE's responsibility "to ensure that the title v permit 'set[s] forth' monitoring to assure compliance with all applicable requirements." Sandy Creek Order at 12 (quoting 42 U.S.C. § 7661c(c)). Further, any emission limit in a Title V permit must be enforceable as both a legal and practical matter. In order for a limit to be enforceable as a practical matter, a proposed permit must clearly specify how emissions will be measured or

determined for purposes of demonstrating compliance with the limit. *See, e.g.*, *In the Matter of Hu Honua Bioenergy Facility, Pepeekeo, HI*, Order on Petition No. IX-2011-1 (Feb. 7, 2014) at 10. This requires that any proposed emission limits "be accompanied by terms and conditions that require a source to effectively constrain its operations so as to not exceed the relevant emissions threshold… whether by restricting emissions directly or through restricting specific operating parameters," and supported by monitoring, recordkeeping, and reporting requirements "sufficient to enable regulators and citizens to determine whether the limit has been exceeded and, if so, to take appropriate enforcement action." *In the Matter of Orange Recycling and Ethanol Production Facility, Pencor-Masada Oxynol, LLC*, Order on Petition No. II-2001-05 (Apr. 8, 2002) at 7.

"In all cases, the rationale for the selected monitoring requirements must be clear and documented in the permit record." CITGO Order at 7-8 (granting petition because permitting authority "did not articulate a rationale for its conclusions that the monitoring requirements… are sufficient to assure compliance"); *see also* 40 C.F.R. § 70 .7(a)(5). Further, "permitting authorities have a responsibility to respond to significant comments." CITGO Order at 7.

2. Specific Grounds for Objection

CPCN 9318 established a project-wide PM_{10} emission limit of 124.2 tpy, which includes both filterable and condensable PM, applicable to "[e]missions for all sources identified as part of the [Liquefaction Project]." CPCN 9318 Order 86372, Condition A-III-4. These limits are incorporated in Condition 25.1 of the Renewal Permit. CPCN 9318 also explicitly identifies the Frame 3, Frame 5, and Solar Titan turbines as units that are part of the Liquefaction Project and subject to its project-wide emission limits. CPCN 9318 Order 88565, Condition A-I-3. Condition 25.0 of the Renewal Permit similarly identifies the Frame 3, Frame 5, and Solar Titan turbines as units that are part of the Liquefaction Project and subject to its project-wide emission limits.

While the Renewal Permit includes a requirement that each of the Frame 3 and Frame 5 turbines comply with a "PM limit" of 0.0066 lb/mmBtu, Conditions 1.1.B, 5.1.B, these limits and their associated testing, monitoring, and reporting requirements[6] apply only to filterable PM. As discussed further below, these separate limits on filterable PM emissions from the Frame 3 and 5 turbines do not (and cannot) eliminate the requirement to ensure that PM_{10} emissions (comprised of filterable and condensable particulates) from the Frame 3 and 5 turbines, together with emissions from other units that comprise the Liquefaction Project, do not exceed 124.2 tons per year. In spite of this, the Renewal Permit does not include any requirement to test, monitor, or report for PM_{10} or condensable PM at the Frame 3 or Frame 5 turbines. Compliance with the Liquefaction Project's PM_{10} limit cannot possibly be determined without any requirement to test, monitor, or report both filterable and condensable PM_{10} emissions from these units.

3. Issue Raised in Public Comment

Petitioners expressly raised this issue in Comment 1.D, Ex. 4 at 6-7, which stated the same points above, and noted that Petitioners assumed the omission of any PM_{10} testing, monitoring, or reporting requirements was merely an oversight, given that the Frame 3 and 5 turbines are subject to the Liquefaction Project's rolling 12- month PM_{10} limit. Comment 2.A also stated that a requirement to stack test for PM (filterable) once every five years at one of the Frame 3, Frame 5, and Solar Titan turbines is not sufficient to assure continuous compliance with the Liquefaction Project's annual PM filterable or PM_{10} limits. *Id.* at 10-11.

4. Analysis of MDE's Response

In its response to Comment 1.D, MDE clarified that this omission was not an error, and confirmed that there are no testing, reporting, or monitoring requirements related to condensable

[6] Listed in Conditions 1.2.B, 1.3.B, 1.4.B, 5.2.B, 5.3.B, and 5.4.B.

PM for the Frame 3 or Frame 5 turbines. MDE asserted that because the "PSD PM BACT analysis conducted for the Frame 3 turbines (issued August 6, 2002) and the Frame 5 turbines (issued June 26, 2006) were well before the applicability date" of COMAR 26.11.17.01B(24), these units are therefore subject only to filterable emission limits. Response to Comment 1.D. In its response to Comment 2.A, MDE also asserts (for the first time that Petitioners are aware of) that the "Liquefaction Project's annual limits do not apply to PM_{10} emissions from the Frame 3, Frame 5, and Solar Titan turbines"—*i.e.*, that emissions from these units are not considered when determining compliance with the Liquefaction Project's PM_{10} emissions limit.[7]

Petitioners agree that the Frame 3 and Frame 5 turbines are not subject to unit-specific PM_{10} emission limits. However, Petitioners emphatically disagree that PM_{10} emissions, and specifically condensable PM emissions, from these units are not subject to the Liquefaction Project's annual PM_{10} emission limit. MDE's explanations regarding the "grandfathered" status of the Frame 3 and 5 turbines are irrelevant, and do not change the requirements of CPCN 9318, which must be incorporated in the Title V permit precisely as they were written. While the Renewal Permit does incorporate the Liquefaction Project's rolling 12-month PM_{10} limit of 124.2 tons, MDE's response indicates that PM_{10} emissions from the Frame 3 and 5 Turbines and the Solar Turbine will no longer be included when determining compliance with the Project emission limits.

MDE's position conflicts with the express terms of CPCN 9318, which made clear that the Liquefaction Project's annual emission limits apply to "[e]missions **for all sources** identified as part of the [Liquefaction Project]," CPCN 9318 Order 86372, Condition A-III-4 (emphasis

[7] So under MDE's view, even though the Solar Titan turbine is subject to a PM_{10} emission limit of 0.0066 lb/mmBtu and a requirement to test once every five years to demonstrate compliance with this limit, its PM_{10} emissions are not counted towards the Liquefaction Project's annual limit.

added), and would effectively authorize PM_{10} emissions in amounts that exceed 124.2 tons. CPCN 9318 makes clear the project-wide PM_{10} emission limit for the Liquefaction Project includes both filterable and condensable particulates. CPCN 9318 Order 86372, Condition A-III-4. CPCN 9318 further made clear that the Frame 3, Frame 5, and Solar Titan turbines are units in the Liquefaction Project that must comply with these project-wide emission limits. CPCN 9318 Order 88565, Condition A-I-3. As noted previously, Cove Point itself requested the amendment to CPCN 9318 to include the Frame 3 and Solar Titan turbines in the Liquefaction Project, and represented in support of this request that it was **not** requesting an increase in the project-wide emission limits and that "the amended Condition would impose the same project-wide restrictions on the GE Frame 3 and Solar Titan turbines, when used for the Project, as are currently imposed on the GE Frame 5 turbines." *Id.* at 8. MDE may not use the Renewal Permit as a vehicle for deciding now that only the filterable portion of particulate matter from these units needs to be counted when determining compliance with the Liquefaction Project.

B. The requirement to test "at least one turbine" once every five years at the Frame 3, Frame 5, and Solar Titan turbines is not sufficient to assure continuous compliance with the Liquefaction Project's PM Filterable or PM_{10} limits, or with the more specific PM Filterable limits that apply to the Frame 3, Frame 5 and Solar Titan turbines.

1. Applicable Requirements

"Each permit issued under [Title V] shall set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions." 42 U.S.C. § 7661c(c). It is MDE's responsibility "to ensure that the title v permit 'set[s] forth' monitoring to assure compliance with all applicable requirements." Sandy Creek Order at 12 (quoting 42 U.S.C. § 7661c(c)). This includes ensuring that the permit includes "periodic monitoring sufficient to yield reliable data from the relevant time period that

are representative of the source's compliance with the permit." 40 C.F.R § 70.6(a)(3)(i)(B). If there is some periodic monitoring, but that monitoring is not sufficient to assure compliance with permit terms and conditions, permitting authorities must supplement monitoring to assure such compliance. 40 C.F.R § 70.6(c)(1). Stack testing alone, even on a more frequent basis, is insufficient to ensure continuous compliance with emission limits—either annual limits or rate-based limits that must apply at all times. Even annual stack tests capture (at most) only a snapshot of emissions over a brief period of three hours out of a year. As EPA has noted, the extent of monitoring necessary is a case and context-specific determination, and "the more variable or less well-understood the emissions the less likely that a single stack test will reflect the operating conditions (and emissions) between stack tests, and the greater the need for more frequent stack testing or parametric monitoring between stack tests." *In the Matter of BP Products North America,* order on Petition No. V-2021-9 (Mar. 4, 2022) ("BP Order") at 20.

Any emission limit in a Title V permit must be enforceable as both a legal and practical matter. In order for a limit to enforceable under the Clean Air Act, it must be supported by monitoring, recordkeeping, and reporting requirements "sufficient to enable regulators and citizens to determine whether the limit has been exceeded and, if so, to take appropriate enforcement action." *Pencor-Masada Oxynol* at 7. "In all cases, the rationale for the selected monitoring requirements must be clear and documented in the permit record." CITGO Order at 7-8 (granting petition because permitting authority "did not articulate a rationale for its conclusions that the monitoring requirements… are sufficient to assure compliance"); see also 40 C.F.R. § 70 .7(a)(5). Further, "permitting authorities have a responsibility to respond to significant comments." CITGO Order at 7.

2. Specific Grounds for Objection

Condition 25.1 of the Renewal Permit incorporates the project-wide PM Filterable limit of 55.7 tpy and PM_{10} limit of 124.2 tpy first established by CPCN 9318 Order 86372. Condition 25.0 of the Renewal Permit explicitly identifies the Frame 3, Frame 5, and Solar Titan turbines as units that are part of the Liquefaction Project and subject to its project-wide emission limits. *See also* CPCN 9318 Order 88565, Condition A-I-3.

Conditions 25.5 and 26.6 require Cove Point to submit quarterly reports which, in relevant part, summarize "the monthly and consecutive rolling 12-month total emissions (in tons per month and tons per year) of PM, PM_{10}… separately for each emission unit and total emissions of those pollutants for all [Liquefaction] Project sources." Condition 25 does not, however, specify exactly how emissions of PM and PM_{10} from each unit are to be measured or calculated. For every other emission unit that comprises the Liquefaction Project, the Renewal Permit requires annual stack testing for PM and PM_{10} and specifies (in the conditions outlining these unit-specific requirements) that Cove Point shall calculate emissions from that unit on a 12-month rolling basis by multiplying the emission factor (the result of the unit's most recent stack test) by the unit's monthly throughput (i.e., monthly fuel flow, mmBtu, etc.). *See, e.g.*, Conditions 21.2.B (requiring annual stack testing at the thermal oxidizer to demonstrate compliance with the PM and PM_{10} emission limits) and 21.3.B (stating PM and PM_{10} emissions "must be calculated based on fuel flow and emission factors developed during annual stack testing and update [sic] emissions on a 12-month rolling basis.").[8]

[8] This is not to say Petitioners believe that calculating monthly emissions simply by multiplying throughput by the most recent stack test result by itself are actually representative of emissions, without any requirements ensuring that operating parameters remain at representative levels during periods in-between stack tests. The Renewal Permit, however, does not meet even this minimal bar for emissions for the Frame 3, 5, and Solar Titan turbines.

A similar requirement is notably absent from the unit-specific monitoring and reporting requirements for the Frame 3, 5, and Solar Titan turbines, however. *See* Conditions 1, 5, and 10. As discussed, the Renewal Permit does not contain any testing, monitoring, or reporting requirements at all for PM_{10} emissions from the Frame 3 and Frame 5 turbines, and only requires Cove Point to perform one stack test every five years for PM_{10} emissions from the Solar Titan turbine, Condition 10.2.B. Further, for the Frame 3, Frame 5, and Solar Combustion turbines, the Renewal Permit only requires Cove Point to test "at least one" turbine once every five years for PM filterable emissions, s*ee* Conditions 1.2.B, 5.2.B, and 10.2.B, and does **not** specify how Cove Point is to calculate monthly or annual PM filterable emissions from these units—or even state that Cove Point is required to do so. In fact, the only "monitoring" requirement for PM from these turbines is a requirement to "preform routine and preventative maintenance in accordance with manufacturer's specifications." Conditions 1.3.B, 5.3.B, and 10.3.B.

MDE's response indicates it believes the Frame 3, 5, and the Solar Titan turbines are not subject to the Liquefaction Project's annual PM_{10} or PM filterable emission limits. According to MDE, because no PM_{10} limits at all apply to the Frame 3 and Frame 5 turbines, the Title V permit does not need to specify any PM_{10} stack testing or continuous monitoring requirements for these units. As explained below, MDE's interpretation is unlawful, and effectively alters PM_{10} emission limits established in the CPCN construction permit.

3. Issue Raised in Public Comment

Petitioners argued that the requirement to perform a stack test once every five years—and in the case of the Frame 3 and Frame 5 turbines, not even **each** turbine every five years—is not adequate to demonstrate compliance with the permit's emission limits (either annual or short-term) in Comment 2.A. Ex. 4 at 10-11. Petitioners also argued in Comment 2.B that stack testing

alone, even on a more frequent basis, would not be sufficient to assure continuous compliance with the permit's emission limits. *Id.* at 11-13.

4. Analysis of MDE's Response

MDE's response to Comment 2.A first states that "[e]missions from the metered power" from the Frame 3, 5, and Solar Titan turbines "is attributed to both the Import Facility emissions, as well as applied to the Liquefaction Project's annual limits." It then asserts that "[t]he Liquefaction Project's annual limits do not limit the annual emissions allowed by the Frame 3, Frame 5, and Solar Titan turbines," which directly contradicts its first statement. RTC at 2.

MDE's response is difficult to follow. To the extent that MDE's position is that these units are not subject to Liquefaction Project's annual limits **at all**, that is plainly incorrect. As discussed above, these units are part of the Liquefaction Project, and their emissions must be counted in determining compliance with the project-wide annual limits. It is unclear what MDE means when it states that "[e]missions from the metered power" from the Frame 3, 5, and Solar Titan turbines are being "attributed to both the Import Facility emissions, as well as applied to the Liquefaction Project's annual limits." The Renewal Permit does not contain any provision explaining how "[e]missions from the metered power" (or emissions from these units at all) are calculated, and as discussed above, does not require testing, monitoring, or reporting of condensable PM_{10} emissions from the Frame 3 or 5 turbines at all, either as a part of the Import Facility or the Liquefaction Project. MDE consequently needs to establish stack testing and a continuous monitoring method for PM_{10} emissions from these units.

While MDE has acknowledged that filterable PM limits do apply to the Frame 3, Frame 5, and Solar Titan turbines, the Renewal Permit only requires Cove Point to test "at least one" turbine once every five years for PM filterable emissions. *See* Conditions 1.2.B, 5.2.B, and

10.2.B. As Petitioners explained in Comment 2.B, this stack testing requirement is too infrequent to assure compliance with either the 0.0066 lb/mmBtu PM filterable limit applicable to the Frame 3 and Frame 5 turbines, or the 0.0066 lb/mmBtu PM_{10} (filterable and condensable) limit applicable to the Solar Titan turbine. For example, these stack testing requirements effectively only require Cove Point to stack test each Frame 3 turbine once every **15 years**, and each Frame 5 turbine once every **10 years**, which certainly does not constitute "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit." 40 C.F.R § 70.6(a)(3)(i)(B).

Petitioners further noted in Comment 2.B that stack testing alone, even on a more frequent basis, would not be sufficient to assure continuous compliance with the permit's emission limits (either annual or short-term) without some form of continuous monitoring in-between periods of stack tests. Ex. 4 at 11-13. In response, MDE stated the following:

> "The Frame 3, Frame 5, and Solar Titan turbines burn natural gas and have limited potential to emit CO, VOC, and PM emissions when operated properly. The Permittee is required to perform routine and preventive maintenance on each unit and maintain the operating parameters of each unit in the range that demonstrates good combustion practices based on past stack emissions tests. Past stack emissions tests show CO, VOC, and PM emissions well below the applicable limits. More frequent testing is not required."

RTC at 3.[9]

Petitioners do not understand this response, and it is clearly problematic for two reasons.

First, MDE has not demonstrated that a requirement to stack test once every five years is sufficient to assure compliance with the Liquefaction Project's annual limits. While MDE vaguely refers to "operating parameters… based on past stack emission tests" and "good

[9] MDE's response also states that the permit was modified to clarify that PM testing for the Frame 3 and Frame 5 turbines "should be performed on alternate combustion turbines, to ensure that testing is not performed on the same combustion turbine." *Id.* This misses the point entirely and does not address Petitioners' concern, which was that at the very minimum, Cove Point should be required to test **each** turbine at least once per permit term.

combustion practices," it does not actually identify any of these operating parameters, explain how they can be used to assure continuous compliance with the annual project-wide emission limits, or even clarify which stack tests MDE is specifically referring to. These parameters are similarly not identified anywhere in the Renewal Permit itself, the permit Fact Sheet, or the biennial monitoring reports included in the permit docket.

Second, MDE's basis for concluding that more stack testing at the Frame 3, 5, and Solar Titan turbines is not required because "[p]ast stack emission tests show… PM emissions well below the applicable limits" is unclear. As an initial matter, this is simply incorrect. The Fact Sheet states that the most recent stack tests at the Frame 5 turbines (conducted in 2008) reported PM filterable results almost 3-4 times higher than their allowable rate, and MDE issued a notice of violation to Cove Point regarding these stack tests on February 23, 2009. *Id.* at 37. The Fact Sheet states Cove Point was "asked to submit new test protocol incorporating revised test method 202 & furnish a survey of PM BACT survey" and "asked to use the new protocol on the Solar turbine… to show compliance with the 0.0066 lb./MMBtu PM10 (filterable and condensable) limit." *Id.* However, it does not say either that the Solar Turbine protocol was supposed to be used to determine emissions from the Frame 3 or Frame 5 turbines, or that the Frame 5 turbines were ever tested using this new protocol—or that they have ever been tested for PM filterable since 2008.

Further, it is not clear which "[p]ast stack emission tests" MDE is referring to. The Frame 3 and Frame 5 turbines have never been tested for condensable PM emissions, and the Fact Sheet indicates that they were most recently tested for filterable PM emissions in 2008 and 2009. Fact Sheet at page 19, 37. These stack tests were limited to **only** filterable PM, did not measure condensable PM, and therefore are not adequate to demonstrate compliance with any PM_{10}

limits. As Petitioners noted in their comments, condensable PM makes up a substantial portion of PM emissions from gas-fired units and EPA's AP-42 for natural gas-fired turbines, which state an emission factor of 0.0047 lb/mmBtu for condensable PM and 0.0019 lb/mmBtu for filterable PM, suggests condensable emissions could be roughly 2.5 times higher than filterable emissions from these types of units. Comments at 10, n. 8. And in fact, the limited stack testing Cove Point has performed at other units at the Terminal suggests that the condensable fraction from these units is likely several times greater than the filterable portion. For example, the April 23, 2021 stack test performed at the two Frame 7 turbines reported PM filterable results of 0.00144 lb/mmBtu and <0.0012 lb/mmBtu, and PM condensable results of 0.00179 lb/mmBtu and 0.00324 lb/mmBtu. That the Frame 3 and 5 turbines have never been tested for condensable PM is especially concerning given that the Fact Sheet indicates their last tests for filterable PM in 2008 and 2009 demonstrated substantially higher PM emissions than the Frame 7 turbines, with an average reported result of 0.0039 lb/mmBtu for the three Frame 3 turbines, and an average reported result of 0.0198 lb/mmBtu[10] for the Frame 5 turbines. Fact Sheet at page 19, 37.

MDE has plainly failed to demonstrate that a requirement to stack test these units once every five years is sufficient to assure compliance with the Liquefaction Project's annual limits, in light of the fact that the Frame 3 and Frame 5 turbines have never been tested for condensable PM and were most recently tested for filterable PM 14 years ago.[11] Given that the stack tests at the Frame 5 turbines demonstrated they were in noncompliance and reported results nearly 3-4 times higher than their PM filterable limit, Petitioners do not believe this requirement is even sufficient to demonstrate compliance with their unit-specific filterable PM emission limits.

[10] Again, over 3-4 times higher than the Frame 5 turbine's PM filterable emission limit of 0.0066 lb/mmBtu.
[11] Petitioners also note that the Fact Sheet does not appear to include an**y** statement of annual PM_{10} emissions, as Table 1 of the Fact Sheet ("Actual Emissions") expressly only provides tons per year for PM filterable.

V. CONCLUSION

For the reasons discussed above, EPA must object to the Renewal Permit. As clearly raised in Petitioner's Comments, the Renewal Permit fails to include testing, monitoring, or reporting requirements sufficient to assure compliance with the Liquefaction Project's rolling 12-month limits for PM and PM_{10}, and these project-wide emission limits are plainly unenforceable both as a legal and practical matter. Accordingly, Petitioners respectfully request that EPA object to the issuance of the Renewal Permit and require that the Title V permit:

(1) Specify that PM_{10} and PM Filterable emissions from the Frame 3, 5, and Solar Titan turbines are subject to the Liquefaction Project emissions cap of 124.2 tons, and that PM_{10} and PM Filterable emissions must be included when determining whether total Project emissions comply with its annual limits;

(2) Include a requirement for periodic stack testing to determine condensable and filterable emissions from the Frame 3 and 5 turbines;

(3) Require that stack tests for Frame 3, 5, and the Solar Turbine must be conducted more frequently than once every five years; and

(4) Specify the procedures that will be used to assure that emissions from the Frame 3,5, and Solar Titan turbines do not exceed the emission levels determined through the most recent stack test performed at each unit.

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Respectfully submitted,

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