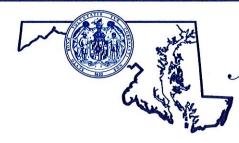
Wes Moore Governor

State of



Serena Mcllwain Secretary

Maryland

DEPARTMENT OF THE ENVIRONMENT Air and Radiation Administration

1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

X NSR Approval	Operat	ting Permit	
PERMIT NO. NSR-2024-01	DATE ISSUED	June 6, 2025	
PERMIT FEE \$57,000.00 (Paid)	EXPIRATION DATE	In accordance with COMAR 26.11.02.04B	
LEGAL OWNER & ADDRESS US Wind, Inc. 401 East Pratt Street Baltimore, MD 21201 Attn: Mr. Jeffrey Grybowski, CEO US Wind, Inc.	Maryland Wind End Atlantic Ocean Offshore, Ocean C Lat 38.352747° N; Premises # 047-02 AI # 153737	ity, Maryland Long 74.753546° W	
SOURCE DESCRIPTION Installation of a wind energy project (Maryland Offshore Wind Project), in a lease area approximately 18.5 km (11.5 miles, 10.0 nautical miles [NM]) off the coast of Maryland on the outer continental shelf (OCS) consisting of up to 121 wind turbine generators (WTG), up to four (4) offshore substations (OSS), and one (1) meteorological tower (Met Tower).			
This source is subject to the condition	ns described on the atta	ched pages.	

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Program Manager

Director, Air and Radiation Administration

Part A	General Provisions
Part B	Applicable Regulations
Part C	Lowest Achievable Emission Rate (LAER)
Part D	Emissions Restrictions and Emissions Offsets Requirements
Part E	Operating and Monitoring Requirements
Part F	Compliance Demonstration
Part G	Reporting and Recordkeeping Requirements

This New Source Review (NSR) Approval covers the following equipment for US Wind, Inc.'s Maryland Offshore Wind Project:

Table 1A – Types of marine vessels, and associated main and auxiliary marine engines, to be used during Construction and Commissioning (C&C)

Vessel Types to be used for Scour Protection Installation	Vessels of	Marine Engines (per each vessel): Type (Main or Auxiliary), Number & Maximum Engine Power (kilowatts (kW)/engine)
Fallpipe Vessel (HC)	1	Main engines (3): 4,500 Auxiliary engines (1): 492 Auxiliary engines (1): 1,200
Vessel Types to be used for Foundation Installation	Vessels of	Marine Engines (per each vessel): Type (Main or Auxiliary), Number & Maximum Engine Power (kW/engine)
Heavy Lift Vessel (HC)	1	Main engines (5): 4,500 Auxiliary engine (1): 4,500
Foundation Installation Tugs (HC)	4	Main engines (2): 2,540 Auxiliary engine (1): 199
Crew Transfer Vessel (HC)	1	Main engines (2): 749 Auxiliary engine (2): 20
Noise Mitigation Offshore Service Vessel (HC)	1	Main engines (2): 3,310 Auxiliary engines (3): 499
Acoustic Monitoring Offshore Service Vessel (HC)	1	Main engines (2): 2,540 Auxiliary engine (1): 199
Environmental Crew Transfer Vessel (HC)	2	Main engines (2): 749 Auxiliary engine (2): 20
Vessel Types to be used for WTG Installation	Vessels of	Marine Engines (per each vessel): Type (Main or Auxiliary), Number & Maximum Engine Power (kW/engine)
Jack-up Vessel (HC) [OCS Source]	1	Main engines (3): 3,800 Auxiliary engines (1): 2,880
Tugs (HC)	3	Main engines (2): 2,540 Auxiliary engines (1): 199

Table 1A – Types of marine vessels, and associated main and auxiliary marine engines, to be used during C&C (continued)

Vessel Types to be used for WTG Commissioning	Vessels of this Type	Marine Engines (per each vessel): Type (Main or Auxiliary), Number & Maximum Engine Power (kW/engine)
Commissioning Crew Transfer Vessels (HC)	3	Main engines (2): 749 Main engines (2): 20
Vessel Types to be used for OSS Installation		Marine Engines (per each vessel): Type (Main or Auxiliary), Number & Maximum Engine Power (kW/engine)
Heavy Lift Vessel (HC)	1	Main engines (5): 4,500 Auxiliary engines (1): 4,500
Tug (HC)	2	Main engines (2): 2,540 Auxiliary engines (1): 199
Noise Mitigation Offshore Service Vessel (HC)	1	Main engines (2): 3,310 Auxiliary engines (3): 499
Acoustic Monitoring Offshore Service Vessel (HC)	1	Main engines (1): 2,500 Auxiliary engines (1): 199
Topside Tug (HC)	1	Main engines (2): 2,540 Auxiliary marine engines (1): 199
Refueling Offshore Service Vessel (HC)	1	Main engines (2): 749 Auxiliary engine (2): 20
Hotel Jack-up Vessel (HC) [OCS Source]	1	Main engines (2): 2,350 Auxiliary engine (2): 1,000
Vessel Types to be used for Array Cable Installation		Marine Engines (per each vessel): Type (Main or Auxiliary), Number & Maximum Engine Power (kW/engine)
Cable Lay Vessel (HC)	1	Main engines (3): 1,750 Auxiliary engine (1): 1,750
Offshore Support Vessel (HC)	1	Main engines (1): 1,611 Auxiliary engine (2): 123
Crew Transfer Vessel (HC)	2	Main engines (2): 749 Auxiliary engine (2): 20
Trenching Vessel (HC)	1	Main engines (5): 3,000 Auxiliary engine (1): 3,000
Guard Crew Transfer Vessel (HC)	1	Main engines (2): 749 Auxiliary engine (2): 20

Table 1A – Types of marine vessels, and associated main and auxiliary marine engines, to be used during C&C (continued)

Vessel Types to be used for	Number of	Marine Engines (per each vessel):
Export Cable Installation	Vessels of Type (Main or Auxiliary), Number 8	
	this Type	Maximum Engine Power (kW/engine)
Cable Lay Vessel (HC)	1	Main engines (3): 1,750
		Auxiliary engine (1): 1,750
Multipurpose Offshore Support	1	Main engines (1): 1,611
Vessel (HC)		Auxiliary engine (2): 123
Trenching Vessel (HC)	1	Main engines (5): 3,000
		Auxiliary engine (1): 3,000
Horizontal Directional Drilling Lift	1	Main engines (2): 2,350
Vessel (HC)		Auxiliary engine (2): 1,000
Horizontal Directional Drilling	1	Main engines (1): 1,611
Pull-In Vessel (HC)		Auxiliary engine (2): 123
Pull-In Support Vessel (HC)	1	Main engines (2): 392
		Auxiliary engine (2): 135
Vessel Types to be used for	Number of	Marine Engines: Type (Main or
Vessel Types to be used for Met Tower Installation	Vessels of	Auxiliary), Number & Maximum
	Vessels of	
	Vessels of	Auxiliary), Number & Maximum
Met Tower Installation	Vessels of this Type	Auxiliary), Number & Maximum Engine Power (kW/engine)
Met Tower Installation	Vessels of this Type	Auxiliary), Number & Maximum Engine Power (kW/engine) Main engines (5): 4,500
Met Tower Installation Heavy Lift Vessel (HC)	Vessels of this Type	Auxiliary), Number & Maximum Engine Power (kW/engine) Main engines (5): 4,500 Auxiliary engine (1): 4,500
Met Tower Installation Heavy Lift Vessel (HC)	Vessels of this Type 1 3	Auxiliary), Number & Maximum Engine Power (kW/engine) Main engines (5): 4,500 Auxiliary engine (1): 4,500 Main engines (2): 2,540
Met Tower Installation Heavy Lift Vessel (HC) Tugs (HC)	Vessels of this Type 1 3	Auxiliary), Number & Maximum Engine Power (kW/engine) Main engines (5): 4,500 Auxiliary engine (1): 4,500 Main engines (2): 2,540 Auxiliary engines (1): 199
Met Tower Installation Heavy Lift Vessel (HC) Tugs (HC) Noise Mitigation Offshore Service	Vessels of this Type 1 3	Auxiliary), Number & Maximum Engine Power (kW/engine) Main engines (5): 4,500 Auxiliary engine (1): 4,500 Main engines (2): 2,540 Auxiliary engines (1): 199 Main engines (2): 3,310 Auxiliary engines (3): 499 Main engines (2): 2,540
Met Tower Installation Heavy Lift Vessel (HC) Tugs (HC) Noise Mitigation Offshore Service Vessel (HC)	Vessels of this Type 1 3	Auxiliary), Number & Maximum Engine Power (kW/engine) Main engines (5): 4,500 Auxiliary engine (1): 4,500 Main engines (2): 2,540 Auxiliary engines (1): 199 Main engines (2): 3,310 Auxiliary engines (3): 499
Met Tower Installation Heavy Lift Vessel (HC) Tugs (HC) Noise Mitigation Offshore Service Vessel (HC) Acoustic Monitoring Offshore	Vessels of this Type 1 3	Auxiliary), Number & Maximum Engine Power (kW/engine) Main engines (5): 4,500 Auxiliary engine (1): 4,500 Main engines (2): 2,540 Auxiliary engines (1): 199 Main engines (2): 3,310 Auxiliary engines (3): 499 Main engines (2): 2,540
Met Tower Installation Heavy Lift Vessel (HC) Tugs (HC) Noise Mitigation Offshore Service Vessel (HC) Acoustic Monitoring Offshore Service Vessel (HC) Refueling Offshore Service Vessel (HC)	Vessels of this Type 1 3 1	Auxiliary), Number & Maximum Engine Power (kW/engine) Main engines (5): 4,500 Auxiliary engine (1): 4,500 Main engines (2): 2,540 Auxiliary engines (1): 199 Main engines (2): 3,310 Auxiliary engines (3): 499 Main engines (2): 2,540 Auxiliary engines (1): 199 Main engines (2): 749 Auxiliary engine (2): 20
Met Tower Installation Heavy Lift Vessel (HC) Tugs (HC) Noise Mitigation Offshore Service Vessel (HC) Acoustic Monitoring Offshore Service Vessel (HC) Refueling Offshore Service	Vessels of this Type 1 3 1	Auxiliary), Number & Maximum Engine Power (kW/engine) Main engines (5): 4,500 Auxiliary engine (1): 4,500 Main engines (2): 2,540 Auxiliary engines (1): 199 Main engines (2): 3,310 Auxiliary engines (3): 499 Main engines (2): 2,540 Auxiliary engines (1): 199 Main engines (2): 749

Table 1B. Types of marine vessels, and associated main and auxiliary marine engines, to be used during Operations and Maintenance (O&M)

Vessel Types to be used for Offshore Marine Operations	Vessels of this Type	Marine Vessel Engines (per each vessel): Type (Main or Auxiliary), Number & Maximum Engine Power (kW/engine)
Fallpipe Vessel (Scour Protection Repairs) (HC)		Main engines (3): 4,500 Auxiliary engines (1): 492 Auxiliary engines (1): 1,200

Crew Transfer Vessel (OSS O&M Refueling Operations) (HC)	1	Main engines (2): 749 Auxiliary engines (2): 20
Jack-Up Vessel (WTG Inspection/Maintenance/Repairs Main Repair Vessel) (HC) [OCS Source]	1	Main engines (2): 2,350 Auxiliary engines (2): 1,000
Survey Vessel (WTG Inspection/Maintenance/Repairs Multi-role Survey Vessel) (HC)	1	Main engines (2): 392 Auxiliary engines (2): 135
Vessel Types to be used for Offshore Maintenance		Marine Vessel Engines (per each vessel): Type (Main or Auxiliary),
Ononoro Mantenano		Number & Maximum Engine Power (kW/engine)
Survey Vessel (Cable Inspection/Repairs Multi-role Survey Vessel) (HC)		Number & Maximum Engine Power
Survey Vessel (Cable Inspection/Repairs Multi-role	this Type	Number & Maximum Engine Power (kW/engine) Main engines (2): 392

Table 2A – Non-Marine Engines – Portable Diesel Generator Engines used during C&C

Activity	Engine Description	Number of Engines	Maximum Engine Power (kW)
OSS Installation	OSS Installation Generator Engine [OCS Source]	4	150

Table 2B - Non-Marine Engines – Portable Diesel Generator Engines used during O&M

Activity	Engine Description	Number of Engines	Maximum Engine Power (kW)
Daily O&M and Miscellaneous (Electrical Service)	Generator Engine [OCS Source]	4	150

Table 2C. Non-Marine Engines – Permanent Diesel Generator Engines used during O&M

Activity	Engine Description	Number of Engines	Maximum Engine Power (kW)
OSS	OSS Generator Engine [OCS Source]	4	150

PART A - GENERAL PROVISIONS

- (1) The following Air and Radiation Administration (ARA) applications and supplemental information are incorporated into this permit by reference:
 - (a) Application for Prevention of Significant Deterioration (PSD) Approval received on August 17, 2023 (hardcopies received on September 3, 2023), with revised application received November 30, 2023 (hardcopies received on December 7, 2023) for the construction of the Maryland Offshore Wind Project.
 - (b) Application for Non-Attainment New Source Review (NA-NSR) Approval received on August 17, 2023 (hardcopies received on September 3, 2023), with revised application received November 30, 2023 (hardcopies received on December 7, 2023) for the construction of the Maryland Offshore Wind Project.
 - Application for Fuel Burning Equipment (Form 11) for the following vessels supporting the construction and/or operation of the Maryland Offshore Wind Project: Foundation Installation Fallpipe Vessel; Foundation Installation Heavy Lift Vessel; Foundation Installation Tugs; Foundation Installation Crew Transfer Vessel; Foundation Installation Offshore Support Vessel Noise Vessels; Foundation Installation Environmental Crew Transfer Vessels; Wind Turbine Generator Installation Jack-up vessel; Wind Turbine Generator Installation Tugs; Wind Turbine Generator Commissioning Crew Transfer Vessels: Offshore Substation Installation Heavy Lift vessel: Offshore Substation Installation Tug; Offshore Substation Installation Offshore Support Vessel; Offshore Substation Installation Topside Tug; Offshore Substation Installation Refueling Offshore Support Vessel; Offshore Substation Installation Hotel Jack-up vessel; Array Cable Lay vessel; Array offshore support vessel; Array Crew Transfer Vessel; Array trenching vessel; Array guard vessel; Export Cable lay vessel; Export Cable Multipurpose Offshore Support Vessel; Export Cable Trenching Vessel; Export Cable Horizontal Directional Drilling

Lift Vessel; Export Cable Horizontal Directional Drilling pull in vessel; Export Cable pull in support vessel; Operation Scour Protection Repair Vessel; Operation Refueling Vessel; Operation Main Repair Vessel; Operation survey vessel; Operation Crew Transfer Vessel; and the Operation Environmental Monitoring Vessel, received on August 17, 2023 with revised forms received November 30, 2023.

(d) Application for Internal Combustion Engines (Form 44) received on August 17, 2023 (hardcopies received on September 3, 2023) with revised form received November 30, 2023 (hardcopies received on December 7, 2023) for the construction/installation of four (4) 150 kW electric generators, each to be located on the four (4) Offshore Substations.

(e) Supplemental Information

- (i) Air Quality Impact Analysis for 24-hour PM-10, annual PM-2.5, 1-hour and annual NO₂ Impacts received on August 17, 2023, and revised copies on November 30, 2023;
- (ii) Response to the Department's Supplemental Request for Additional Information for OCS Air Permit (i.e., revised Section 5, and revised Appendix A) received January 5, 2024;
- (iii) Class I AQRV Assessment Modeling Protocol, received on May 23, 2024;
- (iv) Class I AQRV Assessment Modeling Report, received on July 31, 2024;
- (v) Revised potential to emit emission calculations received on September 20, 2024 for air pollutants originating from various marine vessels, each powered by their own diesel engine and other construction equipment all servicing the construction and operation of the Maryland Offshore Wind Project using the EPA's "Ports Emissions Inventory Guidance: Methodologies for Estimating Port-Related and Goods Movement Mobile Source Emissions", EPA-420-B-22-011, April 2022; and
- (vi) Narrative on vessel selection criteria and information on the assumptions taken to support the facility wide potential to emit, received November 6, 2024.

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

- (2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department"), the EPA, and the Worcester County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:
 - (a) inspect any construction authorized by this Approval;
 - (b) sample, as necessary to determine compliance with requirements of this Approval, any materials stored or processed on-site, any waste materials, and any discharge into the environment;
 - (c) inspect any monitoring equipment required by this Approval;
 - (d) review and copy any records, including all documents required to be maintained by this Approval, relevant to a determination of compliance with requirements of this Approval;
 - (e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this Approval; and
 - (f) the Department may exercise its right of entry through use of an unmanned aircraft system to conduct inspections, collect samples, or make visual observations through photographic or video recordings.
- (3) Nothing in this Approval authorizes the violation of any rule or regulation or the creation of a nuisance or air pollution.
- (4) If any provision of this Approval is declared by proper authority to be invalid, the remaining provisions of the Approval shall remain in effect.
- (5) All terms defined in the Permit to Construct for the Maryland Offshore Wind Project (ARA Premises No. 047-0248) apply to this NSR Approval.
- (6) Any notifications, records, reports, plans, and documents referenced in this Approval shall be made available to the EPA as specified in this Approval or upon request by the EPA.

PART B – APPLICABLE REGULATIONS

(1) COMAR 26.11.17.03B(1), which requires the Permittee to certify that all existing major stationary sources owned and operated by the Permittee in Maryland are in compliance with all applicable emissions limitations or are on an approved federally enforceable plan for compliance.

- (2) COMAR 26.11.17.03B(2), which requires the Permittee to meet an emission limitation which specifies the lowest achievable emission rate (LAER).
- (3) COMAR 26.11.17.03B(3)(b), which requires the Permittee to meet a nitrogen oxides (NOx) emission offset ratio of 1.15:1.

PART C - LOWEST ACHIEVABLE EMISSION RATE (LAER)

- (1) To meet Lowest Achievable Emission Rate (LAER), emissions of nitrogen oxides (NOx) from each OCS source shall be limited to the following:
 - (a) Vessels contracted by the Permittee shall be equipped with marine engines (main and auxiliary) that meet the most stringent, applicable EPA Tier or MARPOL Annex VI emissions standard available at the time the marine vessel is hired for the specific work required in the timeframe required. Marine vessels with the next highest-tier engines may be hired and deployed, if the Permittee documents the basis for its conclusion that the highest-tier vessel, and any other higher-tiered vessels, is not available. The engines may also meet the next most stringent emission standards if the total emissions associated with the use of a vessel with an engine(s) that meet the most stringent emission standards would be greater than the total emissions associated with the use of the vessel with an engine(s) that meet the next most stringent emission standards.

For purposes of this subparagraph, when determining the total emissions associated with the use of a vessel with a particular engine, the Permittee shall include the emissions of the vessel that would occur when the vessel would be in transit to the OCS source facility from the vessel's starting location.

- (b) Each Category 1 main and auxiliary marine engine of a vessel shall be certified to the applicable engine EPA Tier emission standard specified in 40 CFR §1042.101, meeting Tier 2 requirements at the minimum.
- (c) Each Category 2 main and auxiliary marine engine shall be certified to the applicable engine EPA Tier emission standard specified in 40 CFR §1042.101, meeting Tier 2 requirements at the minimum.
- (d) Each Category 3 main and auxiliary marine engine shall be certified to the applicable engine EPA Tier emission standard specified in 40 CFR §1042.104, meeting Tier 2 requirements at the minimum.

- (e) For marine engines (main and auxiliary) onboard foreign-flagged marine vessels, each engine shall be certified to the applicable engine emission standard specified in 40 CFR §1043, meeting MARPOL Annex VI requirements at the minimum.
- (f) For Non-Marine Engines, Portable Diesel Generator Engines used during C&C and O&M, the Permittee shall ensure that each of the portable diesel generator engines is certified to meet the EPA Tier 4 emission standard from 40 CFR §1039, that applies to each engine.
- (g) For Permanent Diesel Generator Engines on OSS during O&M, the Permittee shall ensure that each of the portable diesel generator engines is certified to meet the EPA Tier 4 emission standard from 40 CFR §1039, that applies to each engine.
- (h) The Permittee shall use good combustion practices based on the manufacturer's specifications for all marine and non-marine engines.
- (2) Prior to the C&C Start Date, the Permittee shall provide the Department an initial report, for review and approval, that defines each vessel contracted, each anticipated representative vessel, and each marine and non-marine engine to be used during C&C and O&M for the Maryland Offshore Wind Project. The report shall include, at a minimum, the following information:
 - (a) All the information required by Part G(1)(a), (b), (c), and (d) of this Approval;
 - (b) The proposed LAER for each OCS source engine in units of grams per kilowatt-hour (g/kW-hr);
 - (c) The regulatory citation for each LAER proposal;
 - (d) The proposed LAER compliance demonstration; and
 - (e) Updated Potential to Emit estimates and calculations for NOx as per the emission estimation methods as required in Part F of this Approval.
- (3) C&C shall not commence until the Department has approved the proposed LAER and the proposed LAER compliance demonstration in writing.
- (4) For any vessel or non-marine engine substitutions during the life of the Maryland Offshore Wind Project, the Permittee shall provide the information required by Part C(2), for review and approval, prior to use of that vessel or engine.

PART D - EMISSIONS RESTRICTIONS AND EMISSIONS OFFSET REQUIREMENTS

- (1) Total NOx emissions from the Maryland Offshore Wind Project shall be less than the following limits for any period including periods of startup, shutdown, and malfunction:
 - a) 616 tons maximum annual C&C and O&M, combined during C&C (tons/consecutive 12-months rolling);
 - b) 1380 tons total C&C and O&M, combined during C&C (tons);
 - c) 25 tons maximum O&M (tons/consecutive 12-months rolling).
- (2) In accordance with COMAR 26.11.17.03B(3), the Maryland Offshore Wind Project, whose COA is Worcester County located in the Ozone Transport Region non-attainment area, shall obtain offsets for 25 tons per year of NOx emissions at an offset ratio of 1.15:1; or a total of 29 tons per year from the same or more restrictive ozone non-attainment area.
- (3) In accordance with COMAR 26.11.17.03B(5), the NOx offsets of 29 tons per year shall be federally enforceable and obtained before construction of the project is commenced.
- (4) Prior to the C&C Start Date, the Permittee shall provide the Department updated Potential to Emit estimates and calculations for NOx as per the emission estimation methods as required in Parts C and F of this Approval.

PART E – OPERATING AND MONITORING REQUIREMENTS

- (1) For the Maryland Offshore Wind Project, the Permittee shall develop and implement a plan that will ensure good combustion practices and combustion efficiency, per manufacturer recommendations. The Good Combustion Practices and Combustion Efficiency Plan shall include practices to minimize engine idling, a summary of the good combustion practices for each engine, a preventative maintenance schedule, and any additional information as deemed necessary by the Department.
- (2) The Good Combustion Practices and Combustion Efficiency Plan shall be submitted to the Department for review and approval. Construction shall not commence until the Permittee receives approval of the Good Combustion Practices and Combustion Efficiency Plan from the Department in writing.

PART F - COMPLIANCE DEMONSTRATION

(1) The Permittee shall calculate actual total NOx emissions from the Maryland Offshore Wind Project for each calendar month and for each consecutive 12-

month rolling period. For marine engines, the Permittee shall use the most recent version of the EPA Ports Emissions Inventory Guidance. For non-marine engines the Permittee shall use the most relevant data available, which may include actual test data, tier standards, EPA's annual engine certification data, and any emissions information obtained from equipment vendors. The Permittee must obtain approval from the Department to use an alternate emissions estimation method. The total NOx emissions shall be less than the following limits:

- a) 616 tons maximum annual C&C and O&M, combined during C&C (tons/consecutive 12-months rolling);
- b) 1380 tons total C&C and O&M combined during C&C (tons);
- c) 25 tons maximum O&M (tons/consecutive 12-months rolling).
- (2) The Permittee shall use actual vessel and engine data to calculate emissions as required by Part F(1). The Permittee shall include all data to support the calculations.
- (3) The Permittee shall demonstrate compliance with applicable LAER emission limits (g/kW-hr) for each OCS source engine by ensuring that each engine has an EPA Certificate of Conformity to the applicable Tier emission standard, or a MARPOL Annex VI, IAPP Certificate for the vessel and an EIAPP certificate for the engine, as required in Part C(1).

PART G – REPORTING AND RECORDKEEPING REQUIREMENTS

- (1) The following records with supporting documentation shall be maintained on site for at least five (5) years and made available to the Department upon request:
 - (a) For each vessel associated with the Maryland Offshore Wind Project: the vessel's owner, vessel name, year that the vessel was built, nation of origin of the vessel, exact vessel function, whether the vessel is an OCS Source, and documentation specifically supporting whether (1) the vessel requires attachment to the seabed (either via anchors, spuds (type of jack-up vessel), or other type of attachment) during the C&C or O&M activities; (2) the vessel could be maintained in a fixed position using only the vessel engines and without any attachment to the seabed during the C&C and O&M activities; or (3) the vessel would require attachment to other vessels, while those other vessels are OCS sources, or to the WTGs or OSS structures during the C&C or O&M activities;
 - (b) For each marine engine of each vessel associated with the Maryland Offshore Wind Project, regardless of whether the vessel is

considered an OCS source or not: the engine's category (1 through 3), marine engine function (i.e., main (or propulsion) or auxiliary marine engine), engine type (e.g., slow-speed diesel, gas turbine...), rated engine size and total installed propulsion power (maximum continuous rated engine power in kW), vessel speed and maximum vessel speed, maximum draft, make and model year or remanufacture year, keel-laid year, engine stroke type (e.g. 2- or 4-stroke), displacement in liters/cylinder, install date, maximum in-use engine speed in rotations per minute, type of fuel used (e.g. marine gas oil, marine diesel oil...) and sulfur content for each fuel type, brake specific fuel consumption, average loads, and the EPA Certificate of Conformity to a Tier engine rating, or EIAPP certificate and IAPP certificate, as applicable;

- (c) For each vessel deployed during C&C and/or O&M, the Permittee shall maintain a record of the alternate vessels that, during the time of contract deployment, were available for hire for the required work needed at the time needed, as well as the Tier levels for each vessel's engines. The alternate vessels available for hire shall be listed in ranking order from the one with the highest-tiered engines to the one with the lowest tiered-engines. The record should indicate if the vessel with the highest tiered-engines from the list was the actual vessel hired and deployed. If the vessel with the highest tiered-engines from the list was not the actual vessel hired and deployed, the record should document the reason(s) for the Permittee selection of a vessel with lower-tiered engines;
- (d) For each non-marine engine of each vessel that will be associated with the Maryland Offshore Wind Project: maximum engine power (kW), model year, type of fuel used, and the EPA Certificate of Conformity to the Tier 4 emission standards in 40 CFR §1039.101(b);
- (e) The daily operating hours for each engine associated with the Maryland Offshore Wind Project. The hours of operation shall be recorded from a non-resettable hour meter or, if a non-resettable hour meter is not available, by monitoring and maintaining records of the actual daily operating hours;
- (f) The daily fuel usage, in units of gallons/day, for each engine associated with the Maryland Offshore Wind Project;
- (g) Daily records of marine engine load factors calculated per vessel associated with the Maryland Offshore Wind Project; load factor shall be calculated per the most recent version of the EPA Ports Emissions Inventory Guidance, unless the Permittee obtains

approval from the Department to use an alternate emissions estimation method.

- (h) The monthly and consecutive 12-month rolling actual NOx emissions from the Maryland Offshore Wind Project, including calculations and data to support the calculations; and
- (i) The Good Combustion Practices and Combustion Efficiency Plan that will ensure good combustion practices and combustion efficiency, per manufacturer recommendations and all associated records.
- (2) All air quality notifications, records, reports, plans, and documents required by this Approval shall be submitted electronically to the Air Quality Compliance Program to:

mdeair.othercompliance@maryland.gov