

### U.S. Environmental Protection Agency Region 1

#### **Outer Continental Shelf Clean Air Act Title V Operating Permit**

New England Wind 2
Commonwealth Wind, LLC
Offshore Renewable Wind Energy Development Project

EPA Permit Number: OCS-R1-08-TV

Pursuant to the provisions of Sections 328 and title V of the Clean Air Act ("CAA") and the Code of Federal Regulations ("C.F.R.") Title 40, Part 55 which incorporates by reference 310 CMR 7.00: Appendix C, the United States Environmental Protection Agency Region 1 ("EPA") is proposing to issue an Outer Continental Shelf ("OCS") title V air quality operating permit to Commonwealth Wind, LLC's ("CWW") New England Wind 2 ("NEW2") offshore renewable wind energy development project. This permit would authorize CWW to operate up to 88 wind turbine generators ("WTGs")/Electrical Service Platform ("ESP") positions (up to three of those positions will be occupied by ESPs), all of which would be located within federal waters on the OCS, specifically located within the Bureau of Ocean Energy Management ("BOEM") Renewable Energy Lease Area OCS-A-0561 in the Massachusetts Wind Energy Area.

The operation of the windfarm would be subject to the attached permit conditions and permit limitations. The final permit becomes effective 33 days after the service of notice of the final permit decision unless review is requested on the final permit in accordance with 40 C.F.R. § 124.19 or § 71.11(I), or, if no comments requesting a change in the draft permit are received, the permit shall be effective immediately upon issuance. This permit shall expire 5 years after the effective date and is eligible for renewal. This permit does not relieve Commonwealth Wind, LLC from the obligation to comply with applicable state and federal air pollution control rules and regulations.

David W. Cash	Date of Signature
Regional Administrator	

### **Acronyms and Abbreviation List**

ACTOMYMIS a	ina Appreviation List		
APPS	Act to Prevent Pollution from Ships	LV GIS	Low Voltage Gas Insulated
AQRV	Air Quality Related Values		Switchgear
BACT	Best Available Control Technology	MassDEP	Massachusetts Department of
ВОЕМ	Bureau of Ocean Energy		Environmental Protection
	Management	MW	Megawatt
CAA	Clean Air Act	MV GIS	Medium Voltage Gas Insulated
CA SIP			Switchgear
CA SIP	California State Implementation Plan	NEW1	New England Wind 1
CCD		NEW2	New England Wind 2
C.C.R. CERC	California Code of Regulations Continuous Emission Reduction	NHPA	National Historical Preservation Act
CERC	Credit Emission Reduction	NM	Nautical Mile
CEB		NMFS	National Marine Fisheries Service
C.F.R.	Code of Federal Regulations	NMHC	Non-methane hydrocarbons
CH <sub>4</sub>	Methane	NNSR	Nonattainment New Source Review
CI-ICE	Compression Ignition Internal	NSR	New Source Review
60	Combustion Engine	N₂O	Nitrous oxide
CO	Carbon Monoxide	NO <sub>2</sub>	Nitrogen dioxide
COA	Corresponding Onshore Area	NO <sub>x</sub>	Nitrogen oxides
CO <sub>2</sub>	Carbon Dioxide	ocs	Outer Continental Shelf
CO₂e	Carbon dioxide equivalent	OCSLA	Outer Continental Shelf Lands Act
CWW	Commonwealth Wind, LLC	Pb	Lead
CZMA	Coastal Zone Management Act	PCW	Park City Wind, LLC
EAB	Environmental Appeals Board	PM	Particulate Matter
EGRID	Environmental Protection Agency's	PM <sub>10</sub>	Particulate Matter with an
	Emissions and Generation Resource		Aerodynamic Diameter <= 10
FIADD	Integrated Database		Microns
EIAPP	Engine International Air Pollution	PM <sub>2.5</sub>	Particulate Matter with an
ED A	Prevention		Aerodynamic Diameter <= 2.5
EPA	United States Environmental		Microns
	Protection Agency	PSD	Prevention of Significant
EJ	Environmental Justice		Deterioration
ERC	Emission Reduction Credit	PTE	Potential to Emit
ESA	Endangered Species Act	RICE	Reciprocating Internal Combustion
ESP	Electrical Service Platform		Engine
EUG	Emission Unit Group	RPM	Revolutions Per Minute
FWS	U.S. Fish and Wildlife Service	SER	
GCOP	Cood Combustion and Operation	SEK	Significant Emission Rate
	Good Combustion and Operation	_	Significant Emission Rate Sulfur Hexafluoride
CHC	Practices	SF <sub>6</sub> SIL	Sulfur Hexafluoride
GHG	Practices Greenhouse Gas	SF <sub>6</sub> SIL	Sulfur Hexafluoride Significant Impact Levels
g/kW-hr	Practices Greenhouse Gas Grams per kilowatt-hour	SF <sub>6</sub>	Sulfur Hexafluoride
g/kW-hr H₂SO₄	Practices Greenhouse Gas Grams per kilowatt-hour Sulfuric acid	SF <sub>6</sub> SIL SO <sub>2</sub> TPY	Sulfur Hexafluoride Significant Impact Levels Sulfur Dioxide
g/kW-hr H₂SO₄ HAP	Practices Greenhouse Gas Grams per kilowatt-hour Sulfuric acid Hazardous Air Pollutant	SF <sub>6</sub> SIL SO <sub>2</sub> TPY TV	Sulfur Hexafluoride Significant Impact Levels Sulfur Dioxide Tons Per Year
g/kW-hr H₂SO₄ HAP HC	Practices Greenhouse Gas Grams per kilowatt-hour Sulfuric acid Hazardous Air Pollutant Hydrocarbon	SF <sub>6</sub> SIL SO <sub>2</sub> TPY	Sulfur Hexafluoride Significant Impact Levels Sulfur Dioxide Tons Per Year Title V United States Code
g/kW-hr H₂SO₄ HAP	Practices Greenhouse Gas Grams per kilowatt-hour Sulfuric acid Hazardous Air Pollutant Hydrocarbon High Voltage Gas Insulated	SF <sub>6</sub> SIL SO <sub>2</sub> TPY TV U.S.C.	Sulfur Hexafluoride Significant Impact Levels Sulfur Dioxide Tons Per Year Title V United States Code Vineyard Wind 1, LLC
g/kW-hr H₂SO₄ HAP HC HV GIS	Practices Greenhouse Gas Grams per kilowatt-hour Sulfuric acid Hazardous Air Pollutant Hydrocarbon High Voltage Gas Insulated Switchgear	SF <sub>6</sub> SIL SO <sub>2</sub> TPY TV U.S.C. VW1 VOC	Sulfur Hexafluoride Significant Impact Levels Sulfur Dioxide Tons Per Year Title V United States Code Vineyard Wind 1, LLC Volatile Organic Compound
g/kW-hr H₂SO₄ HAP HC	Practices Greenhouse Gas Grams per kilowatt-hour Sulfuric acid Hazardous Air Pollutant Hydrocarbon High Voltage Gas Insulated Switchgear International Air Pollution	SF <sub>6</sub> SIL SO <sub>2</sub> TPY TV U.S.C. VW1 VOC	Sulfur Hexafluoride Significant Impact Levels Sulfur Dioxide Tons Per Year Title V United States Code Vineyard Wind 1, LLC Volatile Organic Compound Wind Development Area
g/kW-hr H₂SO₄ HAP HC HV GIS	Practices Greenhouse Gas Grams per kilowatt-hour Sulfuric acid Hazardous Air Pollutant Hydrocarbon High Voltage Gas Insulated Switchgear International Air Pollution Prevention	SF <sub>6</sub> SIL SO <sub>2</sub> TPY TV U.S.C. VW1 VOC	Sulfur Hexafluoride Significant Impact Levels Sulfur Dioxide Tons Per Year Title V United States Code Vineyard Wind 1, LLC Volatile Organic Compound
g/kW-hr H₂SO₄ HAP HC HV GIS IAPP	Practices Greenhouse Gas Grams per kilowatt-hour Sulfuric acid Hazardous Air Pollutant Hydrocarbon High Voltage Gas Insulated Switchgear International Air Pollution Prevention ISO New England	SF <sub>6</sub> SIL SO <sub>2</sub> TPY TV U.S.C. VW1 VOC	Sulfur Hexafluoride Significant Impact Levels Sulfur Dioxide Tons Per Year Title V United States Code Vineyard Wind 1, LLC Volatile Organic Compound Wind Development Area
g/kW-hr H₂SO₄ HAP HC HV GIS IAPP ISO NE	Practices Greenhouse Gas Grams per kilowatt-hour Sulfuric acid Hazardous Air Pollutant Hydrocarbon High Voltage Gas Insulated Switchgear International Air Pollution Prevention ISO New England Kilovolt	SF <sub>6</sub> SIL SO <sub>2</sub> TPY TV U.S.C. VW1 VOC	Sulfur Hexafluoride Significant Impact Levels Sulfur Dioxide Tons Per Year Title V United States Code Vineyard Wind 1, LLC Volatile Organic Compound Wind Development Area
g/kW-hr H₂SO₄ HAP HC HV GIS IAPP	Practices Greenhouse Gas Grams per kilowatt-hour Sulfuric acid Hazardous Air Pollutant Hydrocarbon High Voltage Gas Insulated Switchgear International Air Pollution Prevention ISO New England	SF <sub>6</sub> SIL SO <sub>2</sub> TPY TV U.S.C. VW1 VOC	Sulfur Hexafluoride Significant Impact Levels Sulfur Dioxide Tons Per Year Title V United States Code Vineyard Wind 1, LLC Volatile Organic Compound Wind Development Area

### **Table of Contents**

SECTION I.	Introduction (Informational Purposes Only)	4
SECTION II.	Equipment (Informational Purposes Only)	5
SECTION III.	Definitions	7
SECTION IV.	Emission Limits	11
SECTION V.	NNSR Offsets	24
SECTION VI.	Identification of Exempt and Insignificant Activities	25
SECTION VII.	Operating Requirements and Work Practice Standards	26
SECTION VIII.	Testing Requirements	27
SECTION IX.	Recordkeeping Requirements	28
SECTION X.	Reporting Requirements	30
SECTION XI.	General Conditions	31
SECTION XII.	Permit Shield	33
SECTION XIII.	Right of Entry	33
SECTION XIV.	Transfer of Ownership	34
SECTION XV.	Severability	34
SECTION XVI.	Creditable Evidence	34
SECTION XVII.	Permit Fees	35
SECTION XVIII.	Compliance Certification	37
SECTION XIX.	Operational Flexibility	39
SECTION XX.	Permit Term	39

#### **SECTION I.** Introduction (Informational Purposes Only)

Commonwealth Wind, LLC ("CWW" or the "applicant" or the "Permittee") has applied for an initial title V Operating Permit for its New England Wind 2 ("NEW2") facility. This facility is currently operating under Preconstruction Permit No. OCS-R1-08 issued on April 15, 2024. NEW2 is considered part of the same stationary source as the Vineyard Wind 1 ("VW1") and New England Wind 1 ("NEW1") projects. VW1 operates under a separate title V Operating Permit No. OCS-R1-03 (M-1), issued on August 19, 2022. NEW1 will operate under a separate Title V Operating Permit from this permit.

The facility is a major PSD stationary source for NSR pollutants for which the corresponding onshore area ("COA") is designated attainment or unclassifiable and is a major stationary source for NNSR pollutants (and their precursors in the case of ozone) for which the corresponding onshore area ("COA") is a designated nonattainment or is in the Ozone Transport Region ("OTR"). Since the facility is above major threshold for criteria pollutants, it is subject to the Operating Permit Program requirements in 310 CMR 7.00: Appendix C (also referred to as the Title V permit). The facility is an area source of hazardous air pollutant (HAP) emissions per 40 CFR § 63.

The NEW2 facility is comprised of up to eighty-eight (88) wind turbine generators ("WTGs"), up to three (3) electrical service platforms ("ESP"), and associated offshore cables and an onshore transmission system. Once fully operational, the project will have an anticipated nameplate capacity of approximately 1,232 megawatts (MW) of renewable energy. NEW2 is located within federal waters on the OCS located within the Bureau of Ocean Energy Management ("BOEM") Renewable Energy Lease Area OCS-A 0561.

#### **SECTION II. Equipment (Informational Purposes Only)**

The following tables are a narrative description of the proposed equipment. The list of equipment and descriptions are intended for informational purposes only.

The project's emission sources will primarily be compression-ignition internal combustion engines ("CI-ICE"). These include engines on marine vessels while operating as OCS source(s) and engines on the WTG(s) and ESP(s). A marine vessel typically has two (2) types of engines: 1) propulsion engines, also referred to as main engines, which supply power to move the vessel but could also be used to supply power for purposes of performing a given stationary source function (for example, to lift, support, and orient the components of each WTG); and 2) auxiliary engines, which supply power for non-propulsion loads (e.g., electrical loads).

Other emission units at this facility include the low voltage ("LV") gas-insulated switchgears ("GIS") on the WTG and the medium voltage ("MV") and high-voltage ("HV") GIS on the ESP(s).

EUG 1 OCS Generator Engine(s) Installed on the ESP(s) and/or WTG(s)

		• •	• • •	. ,	
EU ID	Description	Type of Equipment	Engine Count	Engine Rating, kW	Installation Date
ENG 2-2, ENG 2-3, ENG 2-4	ESP Permanent Generators	Non-Emergency Generators on ESP(s)	3	450	Expected 2027- 2028
ENG 2-5 through ENG 2-10	WTG O&M Emergency Backup	Emergency Generator on WTGs	6	150	TBD (In the event of an emergency)

#### EUG 2 Marine Engines on Vessels when Operating as OCS Source(s)

Vessel Type	Main Engine Rating (kW)	# Main Engines	Auxiliary Engine Rating (kW)	# Auxiliary Engines	Date of Installation
Daily Operations - O&M				-	
Daily crew transfer vessel 1 / Crew transfer vessel	515	4	20	2	Expected 2027
Daily crew transfer vessel 2 / Crew transfer vessel	515	4	20	2	Expected 2027
SOV Daughter Craft 1 / Crew transfer vessel	246	2	NA - Battery	NA - Battery	Expected 2027
SOV Daughter Craft 2 / Crew transfer vessel	246	2	NA - Battery	NA - Battery	Expected 2027
WTG Inspection/Maintenance/Replacement - O&M					
WTG main repair jack-up vessel / Jack-up vessel (installation)	one 5,760 kW, two 4,230 kW	3	2,880	1	Expected 2027
Jack-up vessel to support repair / Jack-up vessel	2,350	2	1,000	2	Expected 2027

EUG 3 Gas-Insulated Switchgears (GIS) on WTG and ESP

EU ID	Description	Count (# GIS)	Installation Date
LV-GIS	LV GIS on WTGs	LV-GIS: 88	Expected 2027- 2028
MV-GIS, HV-GIS	MV GIS (66-132 kV) on ESP & HV GIS (220-275 kV) on ESP	MV-GIS: 22 HV-GIS: 18	Expected 2027- 2028

Note: The application provided the total quantity of  $SF_6$  in the ESP(s). The total quantity of  $SF_6$  was based on a preliminary design for an 800 MW ESP that contained eighteen 220 kV GIS and twenty-two 66 kV GIS, with the quantities of  $SF_6$  in each switchgear scaled up to a 1,200 MW ESP. However, because the design and electrical configuration of the ESP(s) has not been finalized, the number of individual GIS on the ESP(s) is not yet final. Similarly, since the design and electrical configuration of the WTGs has not been finalized, the number of individual GIS on each WTG is not yet final. Per the Permits OCS-R1-08 and OCS-R1-08-TV,  $SF_6$ -free equipment is required to be used on the WTG(s).

#### **SECTION III. Definitions**

The following definitions shall be used for the purposes of this permit only. Terms not otherwise defined in this permit have the meaning assigned to them in the referenced Clean Air Act provisions and EPA regulations (including the Massachusetts regulations incorporated by reference into 40 C.F.R. part 55).

Air Pollutant shall have the same meaning as that term has within 40 C.F.R. part 55.

Barge, as this term relates specifically to Section IV(C), means a vessel having a flat-bottomed rectangular hull with sloping ends and built with or without a propulsion engine.

Category 1 Marine Engine means the definition as contained in 40 C.F.R. § 1042.901.

Category 2 Marine Engine means the definition as contained in 40 C.F.R. § 1042.901.

Category 3 Marine Engine means the definition as contained in 40 C.F.R. § 1042.901.

Commence means, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

Construction Phase begins on the Construction Phase Start Date and ends the day when the last WTG to be constructed begins producing commercial power.

Construction Phase Start Date is the first day any equipment or activity, that meets the definition of an OCS source, operates, occurs, or exists in the WDA.

Continuous Emission Reduction Credit ("CERC") is equivalent to 1 ton per year of a pollutant, such as  $NO_X$  or VOC. Under 310 CMR 7.00, Appendix B, a CERC is equivalent to a rate-based emission reduction credit ("ERC").

Crew and supply vessel, as this term relates specifically to Section IV(C), means a self-propelled vessel used for carrying personnel and/or supplies to and from off-shore and in-harbor locations (including, but not limited to, off-shore work platforms, construction sites, and other vessels).

Domestic Flagged Vessel means a vessel operated under the authority of the United States.

*Dredge*, as this term relates specifically to Section IV(C), means a vessel designed to remove earth from the bottom of waterways, by means of including, but not limited to, a scoop, a

series of buckets, or a suction pipe. Dredges include, but are not limited to, hopper dredges, clamshell dredges, or pipeline dredges.

Electrical Service Platforms ("ESPs") serve as the common interconnection point for the WTGs. The WTGs will interconnect with an ESP via a 66-132 kV submarine cable system. The ESPs will have circuit breakers and transformers (66kV to 345kV) to increase the voltage level and transmit electricity through the offshore cable system to the final connection point to the onshore bulk power grid.

Emission Control Area ("ECA") means an area designated pursuant to Annex VI as an Emission Control Area that is in force.

Emission Control Area ("ECA") Marine Fuel means diesel, distillate, or residual fuel used, intended for use, or made available for use in category 3 marine vessels while the vessels are operating within an ECA or an ECA associated area.

*Emission Unit* means any part of an OCS source vessel or OCS source, including but not limited to, engines, that emits or would have the potential to emit any air pollutant.

*Engine* shall include diesel-fired compression ignition internal combustion engines, marine engines, and diesel-fired generating sets.

Excursion vessel, as this term relates specifically to Section IV(C), means a self-propelled vessel that transports passengers for purposes including, but not limited to, dinner cruises; harbor, lake, or river tours; scuba diving expeditions; and whale watching tours. "Excursion Vessel" does not include crew and supply vessels, ferries, and recreational vessels.

Exempt Vessel, as this term relates specifically to Section IV(C), means any vessel identified in 17 C.C.R. Section 93118.5.(c), dated July 20, 2011 (and approved by EPA into the California SIP at 83 Fed. Reg. 23232, May 18, 2018).

Ferry, as this term relates specifically to Section IV(C), a harbor craft having provisions only for deck passengers or vehicles, operating on a short run, on a frequent schedule between two points over the most direct water route, and offering a public service of a type normally attributed to a bridge or tunnel.

Foreign-Flagged Vessel means a vessel of foreign registry, or a vessel operated under the authority of a country other than the United States.

Main WTG Installation Vessel, as this term relates specifically to Section VII(B), means the primary vessel responsible for installation of the WTGs when operating as an OCS source.

Marine Engine means a nonroad engine produced for any purpose that is installed or intended to be installed on a marine vessel. This includes a portable auxiliary marine engine only if it is fueling, cooling, or exhaust system is an integral part of the vessel. A fueling system is considered integral to the vessel only if one or more essential elements are permanently affixed to the vessel.

- a. Propulsion marine engine means a marine engine that moves a vessel through the water or directs the vessel's movement.
- b. Auxiliary marine engine means a marine engine not used for propulsion.

*NEW2 Wind Development Area* ("WDA") is the Bureau of Ocean Energy Management ("BOEM") Lease Area OCS-A 0561, located on the OCS.

No. 1 of the [Ringelmann] Chart has the same meaning as 20 % opacity.

No. 2 of the [Ringelmann] Chart has the same meaning as 40% opacity.

North American Emission Control Area ("ECA") means the area designated in Regulation 14.3.2 and Appendix VII of MARPOL Annex VI.

OCS Facility means the entire wind development area once the first OCS source is established in the WDA.

OCS Source has the same meaning as set forth in 40 C.F.R. § 55.2.

*OCS Source Vessel* is any vessel that:

- a. Emits or has the potential to emit any air pollutant.
- b. Is regulated or authorized under the Outer Continental Shelf Lands Act ("OCSLA") (43 U.S.C. § 1331 et seq.); and
- c. Is located on the OCS or in or on waters above the OCS.
- d. Additionally, a vessel is an OCS Source Vessel when permanently or temporarily attached to the seabed and erected thereon and used for the purpose of exploring, developing, or producing resources therefrom, within the meaning of section 4(a)(1) of OCSLA (43 U.S.C. § 1331 et seq.) or when physically attached to an OCS source in which case only the stationary source aspects of the vessels will be regulated.

Operational Phase is the period of operations that begins on the operational phase start date.

Operational Phase Start Date begins when the first WTG begins producing commercial power.

The Permittee includes Commonwealth Wind, LLC; its successor(s) in constructing or operating the permitted project; its contractors; and any agents or parties acting on its behalf that conduct activities regulated by this Permit, including but not limited to vessel, barge, and equipment operators.

Towboat or push boat, as this term relates specifically to Section IV(C), means any self-propelled vessel engaged in or intending to engage in the service of pulling, pushing, or hauling alongside barges or other vessels, or any combination of pulling, pushing, or hauling alongside barges or other vessels. Push boats and towboats are interchangeable terms.

Tugboat, as this term relates specifically to Section IV(C), means any self-propelled vessel engaged in, or intending to engage in, the service of pulling, pushing, maneuvering, berthing, or hauling alongside other vessels, or any combination of pulling, pushing, maneuvering, berthing, or hauling alongside such vessels in harbors, over the open seas, or through rivers and canals. Tugboats generally can be divided into three groups: harbor or short-haul tugboats, oceangoing or long-haul tugboats, and barge tugboats. "Tugboat" is interchangeable with "towboat" and "push boat" when the vessel is used in conjunction with barges.

Responsible Official means a president, secretary, treasurer, or vice-president of the Permittee in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the Permittee, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

- a. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
- b. The delegation of authority to such representatives is approved in advance by the EPA.

*Smoke* means the visible aerosol, which may contain fly ash, resulting from combustion of materials but does not mean condensed water vapor.

*Ultra-low sulfur diesel ("ULSD")* means diesel fuel that is certified to meet the standards in 40 C.F.R. § 1090.305.

#### Vessel means:

- a. self-propelled vessels; and
- b. barges or other non-self-propelled vessels that must be towed by another vessel. The term includes vessels with or without systems that attach, either permanently or temporarily, to the seabed.

Wind Turbine Generator ("WTG") means equipment used to generate electricity from wind.

#### **SECTION IV. Emission Limits**

#### A. Facility Wide Emission Limitations

- 1. The Permittee shall not cause, suffer, allow, or permit any OCS Source to emit smoke which has a shade, density, or appearance equal to or greater than No. 1 of the [Ringelmann] Chart for a period, or aggregate period of time in excess of six minutes during any one hour, provided that at no time during the said six minutes shall the shade, density, or appearance be equal to or greater than No. 2 of the [Ringelmann] Chart. [310 CMR 7.06(1)(a)]
- 2. The Permittee shall not cause, suffer, allow, or permit the operation of any OCS Source to emit any contaminant(s), exclusive of uncombined water or smoke subject to Section IV(A)(1) above, that exceed(s) 20% opacity for a period or aggregate period of time in excess of two minutes during any one hour provided that, at no time during the said two minutes shall the opacity exceed 40%. [310 CMR 7.06(1)(b)]
- 3. OCS source vessels, and offshore engines installed on the WTGs and/or ESPs are subject to the visible emission standards contained in 310 CMR 7.06(3). [310 CMR 7.06(3)]
- 4. No visible fugitive dust emissions shall be discharged in such a manner as to damage or cause air quality standards to be exceeded or interfere with the maintenance of air quality standards. [310 CMR 7.09(1)]
- 5. The permittee shall report and certify GHG emissions annually for the preceding calendar year in accordance with 310 CMR 7.71. [310 CMR 7.71]
- 6. All diesel-fueled compression ignition internal combustion engines subject to New Source Performance Standards (NSPS) Subpart IIII with a displacement of less than 30 liters per cylinder shall use diesel fuel that meets the requirements of 40 C.F.R 1090.305 for nonroad diesel fuel.

  [40 C.F.R. 60.4207(b)]
- 7. All diesel-fueled compression ignition internal combustion engines subject to New Source Performance Standards (NSPS) Subpart IIII with a displacement of greater than or equal to 30 liters per cylinder shall be limited to using diesel fuel not to exceed a maximum per-gallon sulfur content of 1,000 parts per million (ppm).

[40 C.F.R. 60.4207(d)]

8. All diesel-fueled compression ignition internal combustion engines with a displacement of greater than or equal to 30 liters per cylinder shall prioritize the use of ULSD (15 ppm) fuel in lieu of ECA Marine Fuel (1000 ppm) when technically feasible. For purposes of this condition, technical feasibility means utilizing ULSD that meets the low-volatility safety requirements for larger marine engines when it is available.

[40 C.F.R. 52.21, Permit No. OCS-R01-08]

9. Emissions from the operation and maintenance (O&M) activities of the NEW2 project will be limited by, and contribute to, the facility-wide emission limits on NO<sub>X</sub> and VOC identified in this Section. For purposes of compliance with the Facility-wide emission limits in this Section, actual emissions of NO<sub>X</sub> and VOC shall include only those emissions associated with the operational phase from the following: engines located on the ESP(s) and/or WTG(s), engines on vessels that meet the definition of an OCS source, and engines on vessels servicing or associated with the OCS Facility when those vessels are at the OCS Facility, or en route to or from the OCS Facility and are within 25 NM of the OCS Facility's centroid.

[40 C.F.R. part 55 (§ 55.1–55.15, appendix A to part 55), Permit No. OCS-R01-08]

#### Facility-Wide Emission Limits (tons)<sup>1</sup>

	• •
NO <sub>X</sub>	287
VOC	5

<sup>&</sup>lt;sup>1</sup> **Daily rolling, 365-day total.** Note that these limits become effective on the Operational Phase Start Date.

i) Beginning at the Operational Phase Start Date, each operating day, the Permittee shall calculate emissions of NO<sub>X</sub> and VOC from the emission sources defined in Section IV (A)(9) when those sources are engaged in operations and maintenance (O&M) activities using the equation below. Note that for diesel-fired engines operating between 0%–20% engine load, the Permittee shall utilize guaranteed emission factors from engine manufacturer's specifications (or engine specific test data) that indicate a representative emission factor for the lower load intervals for each engine type; or the maximum guaranteed emission factor in units of g/hp-hr (or g/kW-hr) multiplied by the engine-specific load adjustment factors based on known engine manufacturing data; or for Category 3 propulsion engines the maximum guaranteed emission factor in units of g/hp-hr (or g/kW-hr) multiplied by the most representative low load adjustment factors (LLAFs) for the specific pollutant as contained in Table 3.10 of the Port Emissions Inventory Guidance (EPA-420-b-22-011, April 2022). The LLAFs shall be applied separately for each pollutant (and applied to the equation separately for NOx and HC (if HC used as a surrogate for VOC)). Emissions of NO<sub>x</sub> and VOC shall be calculated by taking the product of the brake specific emission factor, the usage in hours (hours per day), the power available (rated power), and the load factor (the power used divided by the power

available). For OCS sources, if actual fuel usage data and engines hours are not recorded for that operating day, Permittee shall assume 100% load (full rated hp (kW)) during the entire operating day for the emission calculations. For transit emissions from support vessels servicing or associated with the OCS source [or OCS Facility], if actual fuel usage data and engines hours are not recorded for that operating day, Permittee can utilize the most representative load factors contained in the Port Emissions Inventory Guidance (EPA-420-b-22-011, April 2022).

$$E_{NOx} = BSEF_{NOx} \times U \times P_A \times \frac{P_U}{P_A}$$
  
 $E_{VOC} = BSEF_{VOC} \times U \times P_A \times \frac{P_U}{P_A}$ 

Where:

 $E_{NOx}$  = Emissions of NOx per operating day (grams(g)/day)

Evoc = Emissions of VOC per operating day (grams(g)/day)

**BSEF** NOx (or VOC) = NOx (or VOC) Brake Specific Emission Factor (g/kW-hr)

**U** = Engine usage in hours (hours per day)

 $P_A$  = Power Available (maximum rated brake power (hp or kW))

$$\mathbf{P_U}$$
 = Power Used (hp or kW) =  $\frac{m}{BSFC}$   
 $m$  = fuel flow rate =  $\frac{\text{(volume of fuel consumed during operating day, gal)}}{\text{(engine operating time during operating day, hours)}}$ 

BSFC = Brake specific fuel consumption (gal-fuel/kW-hr), value is specific for each engine and is located on the issued engine specifications.

• For purposes of calculating VOC and NO<sub>x</sub> emissions from OCS sources, the Permittee shall utilize emission factors from: an EPA-issued Certificate of Conformity (COC) for each engine subject to the emission standards in 40 C.F.R. part 60, subpart IIII, Tier Marine Engine Standards at 40 C.F.R. part 1042, or Nonroad Engine Standards at 40 C.F.R. part 1039; engine manufacturer specifications; site-specific testing derived factors; engine manufacturer's testing data; or an applicable Engine International Air Pollution Prevention ("EIAPP") or International Air Pollution Prevention ("IAPP") certificate, issued by EPA, containing associated engine Annex VI NO<sub>x</sub> standards. *Note that the engine emission standards may be presented as NO<sub>x</sub> + HC or NO<sub>x</sub> and HC separately. If the Tier level combines both NO<sub>x</sub> and either HC or total* 

hydrocarbon (THC) into one emission limit, then that emission limit shall be multiplied by 0.976 for  $NO_X$  and 0.024 for either NMHC or HC. Manufacturers specifications that indicate specific  $NO_X/HC$  ratios, or specific HC or VOC emission factors shall supersede any general assumptions presented here for purposes of the emission calculation demonstration.

- For purposes of calculating VOC and NO<sub>x</sub> emissions from vessels servicing or associated with an OCS Facility while at the OCS Facility, and while enroute to or from the OCS Facility when within 25 NM of the OCS Facility, the Permittee shall utilize emission factors from: an EPA-issued Certificate of Conformity (COC) for any applicable engine containing the emission standards in 40 C.F.R. part 60, subpart IIII, Tier Marine Engine Standards at 40 C.F.R. part 1042, or Nonroad Engine Standards at 40 C.F.R. part 1039, an applicable Engine International Air Pollution Prevention ("EIAPP") or International Air Pollution Prevention ("IAPP") certificate, issued by EPA, containing associated engine Annex VI NO<sub>x</sub> standards, engine manufacturer's specifications, site-specific testing derived factor, or engine manufacturer's testing data.
- For purposes of calculating VOC and NO<sub>x</sub> emissions from vessels servicing or associated with an OCS Facility while at the OCS Facility, and while enroute to or from the OCS Facility when within 25 NM of the OCS Facility without a Certificate of Conformity, EIAPP certificate, or IAPP certificate, the Permittee shall utilize the most representative NOx and VOC emission factors for the vessel utilized as contained in the EPA Port Emissions Inventory Guidance (EPA-420-B-22-011, April 2022). Note that when engine manufacturer's specifications contain specific HC or VOC emission factors, they shall supersede any general assumptions presented here for purposes of the emission calculation demonstration. If the engine manufacturer's specifications do not contain HC or VOC emission factors, Permittee shall then utilize the most representative VOC emissions factors for the vessel utilized as contained in the EPA Ports Emissions Inventory Guidance (EPA-420-B-22-011, April 2022).
- ii) Beginning on the Operational Phase Start Date, at the end of each operating day, the Permittee shall incorporate daily emissions calculated in Section IV(A)(9)(i) into the 365-day total (in units of tons) for  $NO_X$  and VOC. These emissions shall be summed from all the emission sources defined in Section IV(A)(9) when those sources are engaged in operations and maintenance (O&M) activities for determining compliance with the facility-wide emissions cap.

- B. Emission Unit Group (EUG) 1—OCS Generator Engine(s) on the ESPs and WTGs: The following requirements apply to all OCS generator engines located on an ESP or WTG. This includes OCS generator engines utilized in the operations phases.
  - EUG 1 OCS Generator Engines shall not exceed the emission standards (in terms of g/kW-hr) for the highest applicable EPA Tier Marine Engine Standards (i.e., Tier 3 or 4, dependent on the final selected engine size and associated displacement) contained in 40 C.F.R. part 1042, or the EPA Tier 4 Nonroad Engine Standards contained in 40 C.F.R. part 1039 (dependent on the final selected engine size and associated displacement).
     [40 C.F.R. part 60, subpart IIII (§ 60.4200–60.4219, Table 1–Table 8), 40 C.F.R. § 52.21, 310 CMR 7.00 Appendix A]
- C. **EUG 2—Marine Engines on Vessels when Operating as OCS Source(s):** The following requirements apply to all Marine Engines on Vessels when operating as OCS Source(s). This includes propulsion and auxiliary generator engines utilized in the operations phases of the project when operating as OCS Source(s).
  - 1. Marine Engines with a displacement greater than or equal to 30 L/cylinder that meet the definition of an OCS source, are subject to NSPS IIII, and are located on vessels that satisfy the definition of a tugboat, towboat, push boat, crew and supply vessel, dredge, or barge (as defined in Section III. Definitions) and which do not meet the definition of an "exempt vessel" (as defined in Section III. Definitions) must meet the applicable emission standards for NOx and PM at 40 C.F.R. part 60, subpart IIII.

These marine engines must also meet the most stringent emission standard for HC and CO within 40 C.F.R. part 1042, except if one of the conditions in subparagraph (i) or (ii), below, is met in which case the Permittee may use the next most stringent emission standard. For instance, if one of the conditions in subparagraph (i) or (ii), below, is met regarding the use of a Tier 3 engine, the Permittee may instead use a Tier 2 engine. To use a vessel with an engine meeting the next most stringent emission standard, as described above, the Permittee shall ensure one of the following conditions is met:

- i. A vessel with an engine that meets the most stringent emission standard is not available within two hours of when the vessel must be deployed; or
- ii. The total emissions associated with the use of a vessel with engine(s) that meet the most stringent emission standard would be greater than the total emissions associated with the use of the vessel with engine(s) that meet the next most stringent emission standard. 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 WDA from the vessel's starting location.

At a minimum, all applicable engines subject to this condition shall comply with the applicable emission standards (in terms of g/kW-hr) for NOx and PM at 40 C.F.R. part 60, subpart IIII and shall comply with the emission standards (in terms of g/kW-hr) equal to or cleaner than EPA Tier 2 marine engine emission standards contained within 40 C.F.R. part 1042.

[40 C.F.R. part 60, subpart IIII (§60.4200–60.4219, Table 1–Table 8), 40 C.F.R. part 52.21, 310 CMR 7.00 Appendix A]

2. Marine Engines with a displacement greater than or equal to 30 L/cylinder that meet the definition of an OCS source, are subject to NSPS IIII, and are located on vessels otherwise not subject to Section IV(C)(1) must meet the applicable emission standards for NOx and PM at 40 C.F.R. part 60, subpart IIII.

These marine engines must also meet the most stringent emission standards for HC and CO within 40 C.F.R. part 1042 except if one of the conditions in subparagraph (i) or (ii), below, is met, in which case the Permittee may use a vessel with an engine meeting the next most stringent emission standard. For instance, if one of the conditions in subparagraph (i) or (ii), below, is met regarding the use of a Tier 3 engine, the Permittee may instead use a Tier 2 engine. If one of the conditions in subparagraph (i) or (ii), is met regarding the use of a Tier 2 engine, the Permittee may instead use a Tier 1 engine. To use a vessel with an engine meeting the next most stringent emission standard, as described above, the Permittee shall ensure one of the following conditions is met:

- i. A vessel with an engine that meets the more stringent emission standard is not available within two hours of when the vessel must be deployed; or
- ii. The total emissions associated with the use of a vessel with engine(s) that meet the more stringent emission standard would be greater than the total emissions associated with the use of the vessel with engine(s) that meet the next most stringent emission standard. 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 WDA from the vessel's starting location.

At a minimum, all applicable engines subject to this condition shall comply with the applicable emission standards (in terms of g/kW-hr) for NOx and PM at 40 C.F.R. part 60, subpart IIII and shall comply with the emission standards (in terms of g/kW-hr) equal to

or cleaner than EPA Tier 1 marine engine emission standards contained within 40 C.F.R. part 1042.

[40 C.F.R. part 60, subpart IIII (§60.4200–60.4219, Table 1–Table 8), 40 C.F.R. part 52.21, 310 CMR 7.00 Appendix A]

3. Marine Engines with a displacement less than 30 L/cylinder that meet the definition of an OCS source, are subject to NSPS IIII, and are located on vessels that satisfy the definition of a *tugboat, towboat, push boat, crew and supply vessel, dredge,* or *barge* (as defined in Section III. Definitions) and which do not meet the definition of an "exempt vessel" (as defined in Section III. Definitions) must meet the most stringent emission standard for NO<sub>X</sub>, HC, CO, and PM at 40 C.F.R. part 60 subpart IIII.

If a vessel with a marine engine that meets the most stringent emission standard is not available at time of deployment and if one of the conditions in subparagraph (i) or (ii), below, is met, the Permittee may utilize a vessel with a marine engine that meets the next most stringent emission standard. For instance, if one of the conditions in subparagraph (i) or (ii), below, is met regarding the use of a Tier 4 engine, the Permittee may instead use a Tier 3 engine. If one of the conditions in subparagraph (i) or (ii), is met regarding the use of a Tier 3 engine, the Permittee may instead use a Tier 2 engine. To use a vessel with an engine meeting the next most stringent emission standard, as described above, the Permittee shall ensure one of the following conditions is met:

- i. A vessel with an engine that meets the more stringent emission standard is not available within two hours of when the vessel must be deployed; or
- ii. The total emissions associated with the use of a vessel with engine(s) that meet the more stringent emission standard would be greater than the total emissions associated with the use of the vessel with engine(s) that meet the next most stringent emission standard. 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 WDA from the vessel's starting location.

At a minimum, all applicable engines subject to this condition shall comply with emission standards (in terms of g/kW-hr) equal to or cleaner than EPA Tier 2 marine engine emission standards (for Category 1 and Category 2 Marine Engines) contained within 40 C.F.R. part 60 subpart IIII.

[40 C.F.R. part 60, subpart IIII (§ 60.4200–60.4219, Table 1–Table 8), 40 C.F.R. § 52.21, 310 CMR 7.00 Appendix A]

4. Marine Engines with a displacement less than 30 L/cylinder that meet the definition of an OCS source, are subject to NSPS IIII, and are located on vessels not otherwise subject to Section IV(C)(3) must meet the most stringent emission standard for NOx, HC, CO, and PM at 40 C.F.R. part 60, subpart IIII.

If a vessel with a marine engine that meets the most stringent emission standard is not available at time of deployment and if one of the conditions in subparagraph (i) or (ii), below, is met, the Permittee may utilize a vessel with a marine engine that meets the next most stringent emission standard. For instance, if one of the conditions in subparagraph (i) or (ii), below, is met regarding the use of a Tier 4 engine, the Permittee may instead use a Tier 3 engine. If one of the conditions in subparagraph (i) or (ii), is met regarding the use of a Tier 3 engine, the Permittee may instead use a Tier 2 engine. If one of the conditions in subparagraph (i) or (ii), is met regarding the use of a Tier 2 engine, the Permittee may instead use a Tier 1 engine. To use a vessel with an engine meeting the next most stringent emission standard, as described above, the Permittee shall ensure one of the following conditions is met:

- i. A vessel with an engine that meets the more stringent emission standard is not available within two hours of when the vessel must be deployed; or
- ii. The total emissions associated with the use of a vessel with engine(s) that meet the more stringent emission standard would be greater than the total emissions associated with the use of the vessel with engine(s) that meet the next most stringent emission standard. 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 WDA from the vessel's starting location.

At a minimum, all applicable engines subject to this condition shall comply with emission standards (in terms of g/kW-hr) equal to or cleaner than EPA Tier 1 marine engine emission standards (for Category 1 and Category 2 Marine Engines) contained within 40 C.F.R. part 60 subpart IIII.

[40 C.F.R. part 60, subpart IIII (§ 60.4200–60.4219, Table 1–Table 8), 40 C.F.R. § 52.21, 310 CMR 7.00 Appendix A]

5. Marine Engines with a displacement greater than or equal to 30 L/cylinder that meet the definition of an OCS source, are not subject to NSPS IIII, and are located on vessels that satisfy the definition of a *tugboat*, *towboat*, *push boat*, *crew and supply vessel*, *dredge*, or *barge* (as defined in Section III. Definitions) and which do not meet the

definition of an "exempt vessel" (as defined in Section III. Definitions) must meet the most stringent emission standard for NOx, HC, and CO at 40 C.F.R. part 1042.

If a vessel with a marine engine in the most stringent emission standard is not available at time of deployment and if one of the conditions in subparagraph (i) or (ii), below, is met, the Permittee may utilize a vessel with a marine engine that meets the next most stringent emission standard. For instance, if one of the conditions in subparagraph (i) or (ii), below, is met regarding the use of a Tier 3 engine, the Permittee may instead use a Tier 2 engine. To use a vessel with an engine meeting the next most stringent emission standard, as described above, the Permittee shall ensure one of the following conditions is met:

- i. A vessel with an engine that meets the more stringent emission standard is not available within two hours of when the vessel must be deployed; or
- ii. The total emissions associated with the use of a vessel with engine(s) that meet the more stringent emission standard would be greater than the total emissions associated with the use of the vessel with engine(s) that meet the next most stringent emission standard. 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 WDA from the vessel's starting location.

At a minimum, all applicable engines subject to this condition shall comply with emission standards (in terms of g/kW-hr) equal to or cleaner than EPA Tier 2 marine engine emission standards (for Category 3 Marine Engines) contained within 40 C.F.R. part 1042. [40 C.F.R. § 52.21, 310 CMR 7.00 Appendix A]

6. Marine Engines with a displacement greater than or equal to 30 L/cylinder that meet the definition of an OCS source, are not subject to NSPS IIII, and are located on vessels otherwise not subject to Section IV(C)(5) must meet most stringent emission standard for NOx, HC, and CO at 40 C.F.R. part 1042.

If a vessel with a marine engine in the most stringent emission standard is not available at time of deployment and if one of the conditions in subparagraph (i) or (ii), below, is met, the Permittee may utilize a vessel with a marine engine that meets the next most stringent emission standard. For instance, if one of the conditions in subparagraph (i) or (ii), below, is met regarding the use of a Tier 3 engine, the Permittee may instead use a Tier 2 engine. If one of the conditions in subparagraph (i) or (ii), below, is met regarding the use of a Tier 2 engine, the Permittee may instead use a Tier 1 engine. To use a vessel

with an engine meeting the next most stringent emission standard, as described above, the Permittee shall ensure one of the following conditions is met:

- i. A vessel with an engine that meets the more stringent emission standard is not available within two hours of when the vessel must be deployed; or
- ii. The total emissions associated with the use of a vessel with engine(s) that meet the more stringent emission standard would be greater than the total emissions associated with the use of the vessel with engine(s) that meet the next most stringent emission standard. 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 WDA from the vessel's starting location.

At a minimum, all applicable engines subject to this condition shall comply with emission standards (in terms of g/kW-hr) equal to or cleaner than EPA Tier 1 marine engine emission standards (for Category 3 Marine Engines) contained within 40 C.F.R. part 1042. [40 C.F.R. § 52.21, 310 CMR 7.00 Appendix A]

7. Marine Engines with a displacement less than 30 L/cylinder that meet the definition of an OCS source, are not subject to NSPS IIII, and are located on vessels that satisfy the definition of a *tugboat, towboat, push boat, crew and supply vessel, dredge,* or *barge* (as defined in Section III. Definitions) and which do not meet the definition of an "exempt vessel" (as defined in Section III. Definitions) must meet the most stringent emission standard for NO<sub>X</sub>, HC, CO, and PM at 40 C.F.R. part 1042.

If a vessel with a marine engine in the most stringent emission standard is not available at time of deployment and if one of the conditions in subparagraph (i) or (ii), below, is met, the Permittee may utilize a vessel with a marine engine that meets the next most stringent emission standard. For instance, if one of the conditions in subparagraph (i) or (ii), below, is met regarding the use of a Tier 4 engine, the Permittee may instead use a Tier 3 engine. If one of the conditions in subparagraph (i) or (ii), below, is met regarding the use of a Tier 3 engine, the Permittee may instead use a Tier 2 engine. To use a vessel with an engine meeting the next most stringent emission standard, as described above, the Permittee shall ensure one of the following conditions is met:

- i. A vessel with an engine that meets the more stringent emission standard is not available within two hours of when the vessel must be deployed; or
- ii. The total emissions associated with the use of a vessel with engine(s) that meet the more stringent emission standard would be greater than the total

emissions associated with the use of the vessel with engine(s) that meet the next most stringent emission standard. 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 WDA from the vessel's starting location.

At a minimum, all applicable engines subject to this condition shall comply with emission standards (in terms of g/kW-hr) equal to or cleaner than EPA Tier 2 marine engine emission standards (for Category 1 and Category 2 Marine Engines) contained within 40 C.F.R. part 1042. [40 C.F.R. § 52.21, 310 CMR 7.00 Appendix A]

8. Marine Engines with a displacement less than 30 L/cylinder that meet the definition of an OCS source, are not subject to NSPS IIII, and are located on vessels otherwise not subject to Section IV(C)(7) must meet the most stringent emission standard for NO<sub>x</sub>, HC, CO, and PM at 40 C.F.R. part 1042.

If a vessel with a marine engine in the most stringent emission standard is not available at time of deployment and if one of the conditions in subparagraph (i) or (ii), below, is met, the Permittee may utilize a vessel with a marine engine that meets the next most stringent emission standard. For instance, if one of the conditions in subparagraph (i) or (ii), below, is met regarding the use of a Tier 4 engine, the Permittee may instead use a Tier 3 engine. If one of the conditions in subparagraph (i) or (ii), below, is met regarding the use of a Tier 3 engine, the Permittee may instead use a Tier 2 engine. If one of the conditions in subparagraph (i) or (ii), below, is met regarding the use of a Tier 2 engine, the Permittee may instead use a Tier 1 engine. To use a vessel with an engine meeting the next most stringent emission standard, as described above, the Permittee shall ensure one of the following conditions is met:

- i. A vessel with an engine that meets the more stringent emission standard is not available within two hours of when the vessel must be deployed; or
- ii. The total emissions associated with the use of a vessel with engine(s) that meet the more stringent emission standard would be greater than the total emissions associated with the use of the vessel with engine(s) that meet the next most stringent emission standard. 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 WDA from the vessel's starting location.

At a minimum, all applicable engines subject to this condition shall comply with emission standards (in terms of g/kW-hr) equal to or cleaner than EPA Tier 1 marine engine emission standards (for Category 1 and Category 2 Marine Engines) contained within 40 C.F.R. part 1042. [40 C.F.R. § 52.21, 310 CMR 7.00 Appendix A]

- D. **EUG 3— Gas-Insulated Switchgears (GIS) on WTG and ESP.** The following requirements apply to EUG 3:
  - 1. The Permittee shall install and utilize  $SF_6$  free equipment on all low voltage switchgears on the WTGs. [40 C.F.R. § 52.21]
  - 2. The Permittee shall install and utilize sealed switchgear with leak detection systems and alarms on the medium voltage (MV), and high voltage (HV) GIS on the ESP equipment. Compliance with this requirement shall be demonstrated by complying with the manufacturer's specifications for installation and use and with the periodic alarm testing procedures in the frequency and manner specified within those specifications. The Permittee shall maintain a copy of the manufacturer's specifications. [40 C.F.R. § 52.21]
  - 3. Detected leaks of SF<sub>6</sub> from switchgears shall be repaired or contained within five (5) days of discovery. The Permittee shall document and maintain records of the equipment repaired including but not limited to the estimated time of leakage and volume of gas leaked during that time. If a leak cannot be repaired or contained within five (5) days of discovery due to unforeseeable emergency events, the permittee must submit the specific information outlined below to the EPA within 30 days of the event:
    - I. A detailed, chronological, narrative description of the sudden, unforeseeable, emergency event or the specific circumstances necessitating a longer response time for repair and/or containment of  $SF_6$  to avoid an electrical system outage. Such description shall include, but is not limited to, the following:
      - a. The nature of the event (e.g., fire, flood, earthquake, storms)
      - b. The date and time of the event
      - c. The location of the event
      - d. The equipment that was affected by the event
      - e. The function of the affected equipment within the facility's system
      - f. Repairs made to affected equipment
      - g. The amount of SF<sub>6</sub> released (in pounds)
      - h. The specific event which resulted in the release of SF<sub>6</sub>
      - i. The timeline that was needed for repair
      - j. The precautions taken to prevent future releases of SF<sub>6</sub>

II. Information and documentation (including, but not limited to, witness statements, photographs, analysis of damaged equipment, accident reconstruction, or other evidence) that indicates which repairs cannot be made within 5-days.

[40 C.F.R. § 52.21]

4. Leak rate of SF<sub>6</sub> shall not exceed 0.5% per year from the MV and HV GIS on the ESP. The Permittee shall demonstrate compliance with this requirement by mass balance and account for leakage periods. [40 C.F.R. § 52.21]

```
User Emissions = (Decrease \ in \ SF_6 \ inventory) + (Acquisitions \ of \ SF_6) - (Disbursemnet \ of \ SF_6) - (Net \ Increase \ in \ Total \ Nameplate \ Capacity \ of \ Equipment \ Operated)
```

#### Where:

Decrease in  $SF_6$  Inventory = (pounds of  $SF_6$  stored in containers, but not in energized equipment, at the beginning of the year) – (pounds of  $SF_6$  stored in containers, but not in energized equipment, at the end of the year).

Acquisitions of  $SF_6$  = (pounds of  $SF_6$  purchased from chemical producers or distributors in bulk) + (pounds of  $SF_6$  purchased from equipment manufacturers or distributors with or inside equipment, including hermetically sealed-pressure switchgear) + (pounds of  $SF_6$  returned to facility after off-site recycling).

Disbursements of  $SF_6$  = (pounds of  $SF_6$  in bulk and contained in equipment that is sold to other entities) + (pounds of  $SF_6$  returned to suppliers) + (pounds of  $SF_6$  sent off site for recycling) + (pounds of  $SF_6$  sent off-site for destruction).

Net Increase in Total Nameplate Capacity of Equipment Operated = (The Nameplate Capacity of new equipment in pounds, including hermetically sealed-pressure switchgear) – (Nameplate Capacity of retiring equipment in pounds, including hermetically sealed-pressure switchgear).

- 5. The Permittee must maintain SF<sub>6</sub> emissions from GIS below 1.0% maximum annual leak rate. The Permittee may demonstrate compliance with this requirement by complying with Section IV(D)(4) (the more stringent requirement). [310 CMR 7.72(4)(a)]
- 6. The Permittee shall comply with any manufacturer-recommended maintenance procedures or industry best practices that have the effect of reducing leakage of SF<sub>6</sub>. The Permittee may demonstrate compliance with this requirement by complying with Section IV(D)(2) and (3). [310 CMR 7.72 (4)(b)]
- 7. Permittee shall comply with all annual reporting requirements, including but not limited to, the number of pounds of SF<sub>6</sub> emitted during the year from GIS equipment owned,

leased, operated, or controlled by the Permittee and located on the OCS facility, using the equation specified in 40 C.F.R. § 98.303 (and provided below). Note that Nameplate Capacity refers to the full and proper charge of equipment rather than to the actual charge, which may reflect leakage. [310 CMR 7.72 (6)]

User Emissions =  $(Decrease \ in \ SF_6 \ inventory) + (Acquisitions \ of \ SF_6) - (Disbursemnet \ of \ SF_6) - (Net \ Increase \ in \ Total \ Nameplate \ Capacity \ of \ Equipment \ Operated)$ 

#### Where:

Decrease in  $SF_6$  Inventory = (pounds of  $SF_6$  stored in containers, but not in energized equipment, at the beginning of the year) – (pounds of  $SF_6$  stored in containers, but not in energized equipment, at the end of the year).

Acquisitions of  $SF_6$  = (pounds of  $SF_6$  purchased from chemical producers or distributors in bulk) + (pounds of  $SF_6$  purchased from equipment manufacturers or distributors with or inside equipment, including hermetically sealed-pressure switchgear) + (pounds of  $SF_6$  returned to facility after off-site recycling).

Disbursements of  $SF_6$  = (pounds of  $SF_6$  in bulk and contained in equipment that is sold to other entities) + (pounds of  $SF_6$  returned to suppliers) + (pounds of  $SF_6$  sent off site for recycling) + (pounds of  $SF_6$  sent off-site for destruction).

Net Increase in Total Nameplate Capacity of Equipment Operated = (The Nameplate Capacity of new equipment in pounds, including hermetically sealed-pressure switchgear) – (Nameplate Capacity of retiring equipment in pounds, including hermetically sealed-pressure switchgear).

#### **SECTION V. NNSR Offsets**

- A. Before the Operational Phase Start Date, the Permittee shall obtain NO<sub>X</sub> CERCs and VOC CERCs in the manner and amounts specified in Section V(A)(1), (2), or (3) below: [40 C.F.R. § 55.5(d), 310 CMR 7.00 Appendix A, 310 CMR 7.0 Appendix B]
  - 1. Rate-based emission reduction credits certified under the Massachusetts trading bank regulations codified at 310 CMR 7.00, Appendix B. In such case, the Permittee shall obtain a minimum of 361.62 tpy of  $NO_x$  CERCs and 6.3 tpy of VOC CERCs.
  - An agreement(s) between the Permittee and a third-party(ies) that requires the third-party(ies) to create CERCs. In such case, the Permittee shall obtain a minimum of 344.4

tpy of NO<sub>x</sub> CERCs and 6.0 tpy of VOC CERCs. Such an agreement(s) must be federally enforceable prior to the Permittee using said CERCs.

- 3. A facility that has ceased operations and had its CAA permits revoked or rescinded and has not had the resulting emissions reductions certified under the Massachusetts trading bank regulations under 310 CMR 7.00, Appendix B. In such case, the Permittee shall obtain a minimum of 344.4 tpy of NO<sub>x</sub> CERCs and 6.0 tpy of VOC CERCs. CERCs based on a facility shutdown are required to be memorialized in a document from the Commonwealth of Massachusetts to ensure the CERCs from such a shutdown are fully in compliance with the CAA and have not been relied on by Massachusetts to meet other CAA requirements.
- B. The Permittee shall demonstrate that any NO<sub>X</sub> and VOC CERCs used for compliance are surplus, quantifiable, enforceable, and permanent. The Permittee shall submit the demonstration to the EPA and MA DEP prior to the Operational Phase Start Date. The demonstration shall include, at a minimum: 1) the source where the CERCs were generated; 2) the time used to determine the CERCs; and 3) a showing that the CERCs have been adjusted to consider the CAA and the Commonwealth's pollutant emission reduction requirements in effect as of the Final Permit issuance date.

#### SECTION VI. Identification of Exempt and Insignificant Activities

A. The following are considered exempt activities in accordance with the criteria contained in 310 CMR 7.00: Appendix C(5)(h):

[310 CMR 7.00: Appendix C(5)(h)]

Description of Current Exempt Activities	Reason	
The list of current exempt activities is contained in the		
Operating Permit application and shall be updated by		
the Permittee to reflect changes at the facility over the	310 CMR 7.00: Appendix C(5)(h)	
Permit term. An up-to-date copy of exempt activities	310 CIVIN 7.00. Appendix C(3)(11)	
list shall be kept on-site at the facility and a copy shall		
be submitted to the EPA Region 1 Office.		

B. Notwithstanding 310 CMR 7.00: Appendix C(5)(h) any emission unit that is part of the following activities is exempt from the requirements of 310 CMR 7.00: Appendix C, except that emissions from these activities shall be included in determining federal potential to emit under 310 CMR 7.00: Appendix C(2). The insignificant activities identified in the permit application are duplicated below.

[310 CMR 7.00: Appendix C(5)(i)]

- 1. Office activities and the equipment and implements used therein, such as typewriters, printers, and pens;
- 2. Interior maintenance activities and the equipment and supplies used therein, such as janitorial cleaning products and air fresheners; this does not include any cleaning of production equipment or activities regulated by 310 CMR 7.18;
- 3. Bathroom and locker room ventilation and maintenance;
- 4. Copying and duplication activities for internal use and for support of office activities at the facility;
- 5. The activities not regulated by 310 CMR 7.18 in maintenance shops, such as welding, gluing, soldering;
- 6. First aid or emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation;
- 7. Laundry operations that service uniforms or other clothing used at the facility that are not regulated by 310 CMR 7.18;
- 8. Architectural maintenance activities conducted to take care of the buildings and structures at the facility, including repainting, reroofing, and sandblasting;
- 9. Food preparation to service facility cafeterias and dining rooms;
- 10. Liquid petroleum gas (LPG) or petroleum fuels used to power the facility's mobile equipment and not otherwise regulated by the Department;
- 11. Non-process related surface coating and painting which exclusively use nonrefillable aerosol cans;
- 12. Vacuum cleaning systems used exclusively for commercial or residential housekeeping;
- 13. Ventilating systems used exclusively for heating and cooling buildings, for the comfort of people living or working within the building serviced by said system, which EPA has determined need not be contained in an operating permit;

### **SECTION VII. Operating Requirements and Work Practice Standards**

A. The permittee shall comply with all applicable requirements of 40 C.F.R. part 60, subpart IIII, New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (CI ICE) concerning any subject emission units in EUG 1 and EUG 2. The exact requirements that apply are dependent on the engine size, model year, and associated

displacement as specified in the regulation. [40 C.F.R. part 60 subpart IIII (§§60.4209 – 60.4219, Table 5, Table 8)]

B. The permittee shall comply with all applicable requirements of 40 C.F.R. part 63, subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) concerning any subject emission units in EUG 1 and EUG 2. The exact requirements that apply are dependent on the engine size, model year, and associated displacement as specified in the regulation. [40 C.F.R. part 63 subpart ZZZZ (§§63.6600–63.6675, Table 1–Table 8, Appendix A to subpart ZZZZ)]

C. All emission units in EUG 1 shall be operated in accordance with the Good Combustion and Operating Practices ("GCOP") Plan for the facility. The GCOP Plan shall be incorporated into the facility standard operating procedures ("SOPs") and shall be made available for inspection by EPA and the Massachusetts Department of Environmental Protection (MassDEP). The GCOP Plan shall include, but is not limited to: i.) a list of combustion optimization practices to minimize emissions of pollutants and a means of verifying the practices have occurred for each engine type based on the manufacturer's most recent specifications issued for the engines at the time that they are certified (and any updates from the manufacturer should be noted and amended in the plan); ii.) a list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred (if applicable); and iii.) a list of the design choices determined to be LAER/BACT and verification that designs were implemented in the final construction.

[40 C.F.R. § 52.21, 310 CMR 7.00 Appendix A]

D. All emission units in EUG 2 shall be operated in accordance with the Good Combustion and Operating Practices ("GCOP") Plan for the facility. The GCOP Plan shall be incorporated into the facility standard operating procedures ("SOPs") and shall be made available for inspection by EPA and the MassDEP. The GCOP Plan shall include, but is not limited to: i.) a list of combustion optimization practices to minimize emissions of pollutants and a means of verifying the practices have occurred for each engine type based on the manufacturer's most recent specifications issued for the engines at the time that they are certified (and any updates from the manufacturer should be noted and amended in the plan); ii.) a list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred (if applicable); and iii.) a list of the design choices determined to be LAER/BACT and verification that designs were implemented in the final construction. [40 C.F.R. § 52.21, 310 CMR 7.00 Appendix A]

### **SECTION VIII. Testing Requirements**

A. The Permittee shall, upon request by the EPA, conduct emission test(s), including visible emissions, of any operating emission unit subject to an emission limit in Section IV of this

permit, including any engine on any vessel while that vessel is an OCS source. The Permittee shall perform the tests using the procedures and reference in 40 C.F.R. part 60, Appendix A, as applicable. [40 C.F.R. § 52.21]

- B. The Permittee shall conduct a visible emission test for 30 consecutive minutes using the EPA test method 22, once per operating day for each engine operating on a Main WTG Installation Vessel, when operating and considered an OCS source. If during the method 22 test visible emissions are observed for more than 3 consecutive minutes, within 14 calendar days the Permittee shall conduct a visible emission test using the EPA method 9. An operating day is defined as any calendar day in which the vessel operated as an OCS source. All visible emission tests for this specific permit condition shall be conducted in accordance with the EPA test requirements specified in 40 C.F.R. part 60, appendix A, methods 9 and 22.
- C. The permittee shall comply with all applicable requirements of 40 C.F.R. 60 subpart IIII, New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (CI ICE) concerning any subject emission units in EUG 1 and EUG 2. The exact requirements that apply are dependent on the engine size, model year, and associated displacement as specified in the regulation.

[40 C.F.R. part 60 subpart 60 (§§60.4212—60.4213, Table 7]

D. The permittee shall comply with all applicable requirements of 40 C.F.R. part 63, subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) concerning any subject emission units in EUG 1 and EUG 2. The exact requirements that apply are dependent on the engine size, model year, and associated displacement as specified in the regulation.

[40 C.F.R. part 63 subpart ZZZZ (§§63.6610–63.6640, Table 1–Table 8, Appendix A to subpart ZZZZ)]

### **SECTION IX. Recordkeeping Requirements**

- A. The Permittee shall maintain records as listed below. These records shall be retained for a period of at least five years from the date of recording, inspection, testing, or repair, and shall be made available to regulatory representatives upon request. The records shall be maintained during operations activities.

  [40 C.F.R. part 55 (§ 55.1–55.15, Appendix A to part 55), 40 C.F.R. § 52.21, 310 CMR 7.00
  - [40 C.F.R. part 55 (9 55.1–55.15, Appendix A to part 55), 40 C.F.R. 9 52.21, 310 CMR 7.00 Appendix A]
    - 1. Per Section IV(A), for all engines operating on OCS sources (located on the ESP and WTG(s) and all engines on vessels that meet the definition of an OCS source), the Permittee shall keep the following records:

- i. the name of the vessel and/or engine.
- ii. the daily fuel consumption of ECA Marine Fuel or ULSD for each vessel and/or engine (i.e., starting and ending fuel volume per each operating day taking into consideration any refueling); this record is only required if the applicant is using fuel use as a surrogate to power used for purposes of documenting actual engine load when operating.
- iii. the name of the fuel supplier; the Permittee shall keep records for each supplier (if multiple refueling operations with different suppliers are utilized).
- iv. the sulfur content of the fuel.
- v. the method used to determine the sulfur content of the fuel (compliance may be shown by supplier's receipt at refueling indicating % sulfur content).
- vi. the make, model, maximum rated horsepower, engine displacement (L/cylinder), and manufacturing date.
- 2. Records of the operational phase start date.
- 3. Per Section IV(A)(9)(i), records of the  $NO_X$  and VOC emissions each operating day.
- 4. Per Section IV(A)(9)(ii), records of the daily rolling, 365-day total of  $NO_X$  and VOC emissions.
- 5. Records of the date that any equipment, activity, or vessel is considered an OCS source, and associated date that any equipment, activity, or vessel ceases to be an OCS source.
- 6. Records documenting the make, model, maximum rated horsepower, engine displacement (L/cylinder), and manufacturing date of all engines on vessels servicing or associated with the OCS facility when those vessels are at the OCS facility, or en route to or from the OCS facility and are within 25 NM of the OCS facility's centroid. This includes domestic and/or foreign-flagged vessels. The records must be maintained during operations activities.
- Per Section IV(B)(1), permittee shall maintain records of the EPA-issued COCs or manufacturers' certifications which demonstrate the tier standard each engine within Emission Unit Group (EUG) 1—OCS Generator Engine(s) on the ESPs and WTGs has been certified to meet.
- 8. Per Section VII (C.) and (D.), permittee shall maintain a copy of the GCOP Plan for the facility. The Permittee should include a list of the design choices determined to be LAER/BACT and verification that designs were implemented in the final construction and operation.
- 9. Per Section IV(C)(1) through (8), records of the engines on vessels while operating as OCS sources. The Permittee shall include verification that Section IV(C)(1) through (8) requirements for LAER and BACT were implemented in the final construction and operation of the project, including any supplemental documentation for a lower tier vessel.
- Per Section IV(D), verification that the BACT requirements for equipment on switchgears were implemented in the final construction and operation of the project.

- 11. Per Section IV(D), records of  $SF_6$  user emissions (including the *Decrease in SF*<sub>6</sub> Inventory, Acquisitions of  $SF_6$ , Disbursements of  $SF_6$ , and Net Increase in Total Nameplate Capacity of Equipment Operated).
- 12. Records of monthly operational records in accordance with 310 CMR 7.18(30)(e).
- 13. All records as required by NSPS IIII and NESHAP ZZZZ.

#### **SECTION X. Reporting Requirements**

- A. The Permittee shall notify the EPA, in writing, at least 30 days, but no more than 90 days, prior to locating the first OCS source within the WDA. [40 C.F.R. part 55 (§ 55.1–55.15, appendix A to part 55), 40 C.F.R. § 52.21, 310 CMR 7.00 Appendix A, Permit No. OCS-R1-08]
- B. The Permittee shall notify the EPA, in writing, at least 30 days prior to installing and/or operating an engine on each WTG and ESP. The notification shall include, for each engine, the make, model, maximum rated power output, engine displacement, and manufacturing date. [40 C.F.R. part 55 (§ 55.1–55.15, appendix A to part 55), 40 C.F.R. § 52.21, 310 CMR 7.00 Appendix A, Permit No. OCS-R1-08]
- C. The Permittee shall provide written notification to the EPA at least 7 days prior to the first WTG producing commercial power.
- D. The Permittee shall provide written notification to the EPA when the construction phase ends before the last WTG produces commercial power.
- E. The permittee shall provide a copy of the notice of the 500-meter safety exclusion zones approved by the U.S. Coast Guard.
- F. The Permittee shall promptly report any permit deviations. The "Prompt Deviation Report" is available to the Permittee via the EPA's web site, <a href="https://www.epa.gov/title-v-operating-permits/epa-issued-operating-permits">https://www.epa.gov/title-v-operating-permits/epa-issued-operating-permits</a>.
- G. Reporting pursuant to 40 C.F.R. part 60 and part 63 may be submitted to EPA via the Compliance and Emissions Data Reporting Interface (CEDRI) available on EPA's Central Data Exchange (CDX). Information on reporting via CEDRI is available on EPA's web site, <a href="https://www.epa.gov/electronic-reporting-air-emissions/cedri">https://www.epa.gov/electronic-reporting-air-emissions/cedri</a>. Reports not submitted via CEDRI shall be sent electronically to the Air Compliance Clerk, Sandra Schwartz via email at <a href="mailto:schwartz.sandra@epa.gov">schwartz.sandra@epa.gov</a> and a hard copy provided to the EPA, per the address contained in Section X.J.
- H. When requested by the EPA, the Permittee shall furnish any information required by law which is needed to determine compliance with the permit. If the Permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any

report to the EPA, the Permittee shall, upon becoming aware of such facts or corrected information, promptly submit to the EPA such facts or corrected information. [40 C.F.R. part 55 (§ 55.1–55.15, appendix A to part 55), 40 C.F.R. § 52.21, 310 CMR 7.00 Appendix A, Permit No. OCS-R1-08]

I. The Permittee shall furnish to the EPA, within a reasonable time, any information that the EPA may request in writing to determine whether cause exists for modifying, revoking, reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the EPA copies of records that are required to be maintained by this permit, including information claimed to be confidential. The Permittee may, if it desires, assert a business confidentiality claim covering the information (other than emission data), in the manner described in 40 C.F.R. § 2.203(b). Information covered by such a claim will be disclosed by EPA only to the extent, and by means of the procedures, set forth in subpart B of 40 C.F.R. part 2. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice to the Permittee. For more information, see 40 C.F.R. part 2, subpart B, and 41 FR 36902 (Sept. 1, 1976). [40 C.F.R. part 55 (§ 55.1–55.15, appendix A to part 55), 40 C.F.R. § 52.21, 310 CMR 7.00 Appendix A, Permit No. OCS-R1-08]

#### J. Agency Address

Subject to change, all correspondence required by this permit including, but not limited to, all records, reports, or other information requested by EPA, shall be forwarded to the following address below.

U.S. EPA Region I
Enforcement and Compliance Assurance Division
Attn: Air Compliance Clerk
5 Post Office Square, Suite 100
Mail Code 4-WO
Boston, MA 02109–3912

Alternatively, the Permittee may submit reports electronically upon written notification by EPA of an approved electronic reporting procedure.

#### **SECTION XI. General Conditions**

A. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), 40 C.F.R. § 55.6(a)(4), and 310 CMR 7.00: Appendix C, the Permittee shall comply with all conditions contained in this permit. Should there be any differences between provisions contained in the General Conditions of this permit and any provisions contained elsewhere in this permit, the latter shall govern.

[310 CMR 7.01(3)(f), 40 C.F.R. § 55.6(a)(4)]

B. The permittee shall comply with all conditions of the operating permit including the approved compliance plan. Any noncompliance with a permit condition constitutes a violation of 310 CMR 7.00: Appendix C or 42 U.S.C. 7661 et seq., and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of an operating permit renewal application.

[310 CMR 7.00, Appendix C(3)(g)7(a)]

C. A permittee in an enforcement action cannot use as a defense that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the operating permit.

[310 CMR 7.00, Appendix C(3)(g)7(b)]

D. The operating permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for an operating permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any operating permit condition.

[310 CMR 7.00, Appendix C(3)(g)7(c)]

E. The operating permit does not convey any property rights of any sort, or any exclusive privilege.

[310 CMR 7.00, Appendix C(3)(g)7(d)]

F. All terms and conditions in an operating permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the EPA and citizens under 42 U.S.C. 7661 et seq. Notwithstanding the preceding sentence, the Department shall specifically designate in the operating permit any terms and conditions that are not federally enforceable because the terms and conditions are not required under 42 U.S.C. 7661 et seq. or under any of its applicable requirements.

[310 CMR 7.00, Appendix C(3)(g)7(e)]

G. The Permittee shall notify all other owners and operators, contractors, and the subsequent owners and operators associated with emissions from the permitted activities, of the conditions of the permit.

[40 C.F.R. § 55.6(a)(4)(iv)]

H. OCS sources shall comply with all requirements of 40 C.F.R. part 55 and all permits issued pursuant to 40 C.F.R. part 55. Failure to do so shall be considered a violation of section 111(e) of the CAA. All enforcement provisions of the CAA, including, but not limited to, the provisions of sections 113, 114, 120, 303, and 304 of the CAA shall apply to the permitted activities.

[40 C.F.R. § 55.9(a) and (b)]

I. If the Permittee is ordered to cease operation of any piece of equipment due to enforcement action taken by EPA, the shutdown will be coordinated by the EPA with the Department of Interior's *Bureau of Ocean Energy Management (BOEM)*, Bureau of Safety and Environmental Enforcement (BSEE), and the United States Coast Guard, to assure that

the shutdown will proceed in a safe manner. No shutdown action will occur until after the EPA's consultation with these entities, but in no case will initiation of the shutdown be delayed by more than 24 hours.

[40 C.F.R. §§ 55.9(c)]

J. If requested in writing by the EPA, the Permittee shall have up to 30 days to submit to the EPA, an Emission Reduction Plan that meets the requirements of 310 CMR 8.08.

[310 CMR 8.08(1) - (6)]

K. The Permittee shall construct and operate all equipment regulated herein in compliance with all other applicable provisions of federal and state air regulations.

[40 C.F.R. § 55.6(a)(4)(iii)]

L. In the case of a safety issue, engine failure, or a storm at sea that requires a vessel to attach temporarily to the seabed, the vessel will not be considered an OCS source because of that attachment. Facility shall maintain records of instances of temporary attachment that occur due to safety issue, engine failure, or a storm at sea. The record shall be made for each occurrence and include the following details: the date and time the vessel was attached to seabed, the reason for temporarily attaching the vessel to the seabed, a statement on any activity being conducted at the time of attachment, and any pertinent engine information, including but not limited to make, model, maximum rated power output, engine displacement, and manufacturing date.

[Permit No. OCS-R1-08]

#### **SECTION XII. Permit Shield**

Compliance with the terms and conditions of this permit shall be deemed compliance with the applicable requirements that are included and are specifically identified in this permit. Nothing in this permit shall alter or affect the following:

- 1. The provisions of CAA section 303 (emergency orders), including the authority of the Administrator under that section;
- 2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
- 3. The ability of EPA to obtain information from a source pursuant to CAA section 114.

[310 CMR 7.00. Appendix C (12)]

#### **SECTION XIII. Right of Entry**

A. The Permittee shall allow all authorized representatives of EPA and MassDEP, upon presentation of credentials, to enter upon or through any OCS source permitted by this

permit and to enter upon or through any location where records required under this permit are maintained. The Permittee shall allow such authorized representatives, at reasonable times:

- 1. to access and copy any records that must be maintained under this permit.
- 2. to inspect any OCS source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
- 3. to monitor substances or parameters and sample emissions for purposes of assuring compliance with this permit.

[Section 114 of the Clean Air Act, 42 U.S.C. § 7414; 40 C.F.R. §§ 55.8(a)-(b)]

### **SECTION XIV. Transfer of Ownership**

- A. In the event of any changes in control or ownership of the Project, this permit shall be binding on all subsequent owners and operators. The Permittee shall notify the succeeding owner and operator of the existence of this permit and its conditions before such change, if possible, but in no case later than 14 days after such change. Notification shall be sent by letter with a copy forwarded within five (5) days to the EPA.
- B. A change in ownership or operation control is considered an administrative permit amendment to the title V operating permit if no other change in the Permit is necessary and provided that a written agreement containing a specific date for transfer of Permit responsibility, coverage, and liability between current and new Permittee, has been submitted to the EPA. [310 CMR 7.00, Appendix C, (8)(a)]

#### **SECTION XV. Severability**

A. The provisions of this permit are severable, and if any provision of the permit is held by a court or other tribunal of competent jurisdiction to be invalid or unenforceable, the remainder of this permit will not be affected thereby and shall remain in full force and effect.

[310 CMR 7.00, Appendix C, section (3)(g)6]

#### **SECTION XVI. Credible Evidence**

A. For the purpose of submitting compliance certifications in accordance with Section XVIII. of this permit or establishing whether or not the Permittee has violated or is in violation of any requirement of this permit, nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with applicable requirements if the appropriate performance or compliance test

or procedure had been performed. [CAA §§ 113(a) and (e)(1), 40 C.F.R. §§ 60.11(g) and 61.12]

#### **SECTION XVII. Permit Fees**

The "Forms Used After Permit Issuance" contains instructions and the Fee Calculation Worksheet (FEE), and Fee Filing (FF) form. The "Forms Used After Permit Issuance" are available to the Permittee via the EPA's web site, <a href="https://www.epa.gov/title-v-operating-permits/epa-issued-operating-permits">https://www.epa.gov/title-v-operating-permits/epa-issued-operating-permits</a>. [40 C.F.R. § 71.9]

- A. No later than April 1 of each year, the permittee shall submit the following to EPA:
  - 1. Full payment of the annual permit fee, as specified in Sections XVII.B. through K;
  - 2. An updated fee calculation worksheet using EPA Form 5900-03 and an EPA Fee Filing Form 5900-06, and either copy of the electronic payment confirmation generated by the online payment system or photocopy of each fee payment check (or other conditions of actual fee paid), as specified in Sections XVII.B. through K.
  - 3. An annual emission report of actual emissions as specified in Section XVII.F. for the preceding calendar year.
- B. The fee payment shall be in United States currency and shall be paid by money order, bank draft, certified check, corporate check, or electronic funds transfer payable to the order of the U.S. Environmental Protection Agency.
- C. The Permittee shall submit all fee-related payments and supporting documentation to the following address:

U.S. Environmental Protection Agency OCFO/OC/ACAD/FCB Attn: Collections Team 1300 Pennsylvania Ave NW Mail Code 2733R Washington, DC 20004

D. The Permittee shall send a copy of EPA Form 5900-03, EPA Fee Filing Form 5900-06, and either copy of the electronic payment confirmation generated by the online payment system or photocopy of each fee payment check (or other conditions of actual fee paid), annually by the date specified in Section XVII. A to:

U.S. EPA Region 1
Air and Radiation Division
Air Permits, Toxics, and Indoor Programs Branch
Attn. Branch Supervisor
5 Post Office Square, 5-MO
Boston, MA 02109-3912

- E. The annual emissions fee shall be calculated by multiplying the total tons of actual emissions of all "regulated pollutants (for fee calculation)" emitted from the source by the presumptive emission fee (in dollars/ton) in effect at the time at the time of calculation. The presumptive emission fee is revised each calendar year and is available from EPA prior to the start of each calendar year.
  - "Actual emissions" means the actual rate of emissions in tons per year (TPY) of any "regulated pollutant (for fee calculation)," as defined in 40 C.F.R. § 71.2, emitted from a part 71 source over the preceding calendar year. Actual emissions shall be calculated using each emissions unit's actual operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year.
  - 2. Actual emissions shall be computed using methods required by the permit for determining compliance.
  - 3. If actual emissions cannot be determined using the compliance methods in the permit, the permittee shall use other federally recognized procedures.
  - 4. The permittee shall exclude the following emissions from the calculation of fees:
    - a. the amount of actual emissions of each regulated pollutant (for fee calculation) that the source emits in excess of 4,000 tons per year;
    - b. actual emissions of any regulated pollutant (for fee calculation) already included in the fee calculation; and
    - c. the insignificant quantities of actual emissions not required to be listed or calculated in a permit application pursuant to 40 C.F.R. § 71.5(c)(11).
  - F. The permittee shall submit an annual emissions report of its actual emissions for the preceding calendar year. The annual emissions report shall be certified by a responsible official and shall be submitted each year to EPA by the date specified in Section XVII.A. of this permit. The annual emissions report shall be submitted to EPA at the address listed in Section XVII. D of this permit.

- G. Fee calculation worksheets shall be certified as to truth, accuracy, and completeness by a responsible official in accordance with Section XVIII. of this permit.
- H. The permittee shall retain, in accordance with the provisions of Section IX. of this permit, all worksheets and other materials used to determine fee payments. Records shall be retained for five years following the year in which the emissions data are submitted.
- I. Failure of the permittee to pay fees in a timely manner shall subject the permittee to assessment of penalties and interest.
- J. The permittee, when notified by EPA of additional amounts due, shall remit full payment within 30 days of receipt of an invoice from EPA.
- K. If the permittee believes that an EPA-assessed fee is in error and wishes to challenge such fee, the permittee shall provide a written explanation of the alleged error to EPA along with full payment of the EPA assessed fee.

### **SECTION XVIII. Compliance Certification**

All documents submitted to the EPA shall contain certification by the responsible official of truth, accuracy, and completeness. Such certification shall be in compliance with 310 CMR 7.01(2) and contain the following language:

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."

The "Forms Used After Permit Issuance" contains instructions and the Annual Compliance Report and Certification, the Semi-Annual Monitoring Summary Report and Certification, and the truth, accuracy, and completeness (CTAC) Certification. The "Forms Used After Permit Issuance" are available to the Permittee via the EPA's web site, <a href="https://www.epa.gov/title-v-operating-permits/epa-issued-operating-permits">https://www.epa.gov/title-v-operating-permits/epa-issued-operating-permits</a>.

A. Annual Compliance Report and Certification

The Responsible Official shall certify, annually for the calendar year, that the facility is in compliance with the requirements of this Operating Permit. The report shall be postmarked or delivered by January 30 to the Air Compliance Clerk, U.S. Environmental Protection Agency - New England Region. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- 1. the terms and conditions of the Permit that are the basis of the certification;
- 2. the current compliance status and whether compliance was continuous or intermittent during the reporting period;
- 3. the methods used for determining compliance, including a description of the monitoring, recordkeeping, and reporting requirements and test methods; and
- 4. any additional information required by the EPA or MassDEP to determine the compliance status of the source.

#### L. Semi-Annual Reporting

The Responsible Official shall certify, semi-annually on the calendar year, that the facility is in compliance with the requirements of this Permit. The report shall be postmarked or delivered by January 30 and July 30 to the Air Compliance Clerk, U.S. Environmental Protection Agency - New England Region. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- 1. the terms and conditions of the Permit that are the basis of the certification;
- 2. the current compliance status during the reporting period;
- 3. the methods used for determining compliance, including a description of the monitoring, recordkeeping, and reporting requirements and test methods;
- 4. whether there were any deviations during the reporting period;
- 5. if there are any outstanding deviations at the time of reporting, and the Corrective Action Plan to remedy said deviation;
- 6. whether deviations in the reporting period were previously reported;
- 7. if there are any outstanding deviations at the time of reporting, the proposed date of return to compliance;
- 8. if the deviations in the reporting period have returned to compliance and date of such return to compliance; and
- 9. any additional information required by the EPA or MassDEP to determine the compliance status of the source.

#### **SECTION XIX. Operational Flexibility**

The permittee is allowed to make a limited class of changes under section 502(b)(10) of the CAA within this permitted facility without applying for a permit revision provided the changes do not exceed the emissions allowable under this permit (whether expressed therein as a rate of emissions or in terms of total emissions) and are not Title I modifications. This class of changes does not include changes that would violate applicable requirements or changes that would contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements. Any facility issued an operating permit may make Section 502(b)(10) changes through the procedures set forth in 310 CMR 7.00: Appendix C(7).

- A. The EPA will attach the notice of the change to the operating permit but shall not revise the operating permit until the next application for renewal.
- B. If the requirements of 310 CMR 7.00: Appendix C(7) are met, the change may be made 15 days after receipt of the notice of the change by EPA whichever is later.
- C. No change may be made pursuant to 310 CMR 7.00: Appendix C(7) if the change would:
  - 1. violate an applicable requirement(s);
  - 2. contravene a federally enforceable permit term(s) and condition(s) that is monitoring (including test methods), recordkeeping, reporting, or compliance certification;
  - 3. is a modification under 42 U.S.C. 7401, Title I; or
  - 4. is in excess of the emissions allowed under the operating permit (whether expressed therein as a rate of emissions or in terms of total emissions).
- D. A responsible official must provide the EPA with written notification at least 15 days in advance of the proposed changes. For each such change, the written notification required above shall include:
  - 1. A brief description of the change within the permitted facility;
  - 2. The date on which the change will occur;
  - 3. Any change in emissions; and
  - 4. Any permit term or condition that is no longer applicable as a result of the change.

#### **SECTION XX. Permit Term**

A. Unless specified otherwise, the term of the permit shall be five years from the effective date. [310 CMR 7.00, Appendix C(3)(c)]

B. A source's right to operate shall terminate upon the expiration of its permit unless a timely and complete renewal application has been submitted at least six months before the date of expiration. [310 CMR 7.00, Appendix C(3)(d)(2) and (4)(b)(4)]