



**REGION 3**

PHILADELPHIA, PA 19103

**Outer Continental Shelf Air Permit  
U.S. Environmental Protection Agency  
Region 3**

Outer Continental Shelf Air Permit Dominion Energy

Coastal Virginia Offshore Wind Commercial Project

EPA Permit Number: **OCS-R3-01**

Pursuant to the provisions of Section 328 of the Clean Air Act (CAA) and the Code of Federal Regulations (C.F.R.) Title 40, Part 55, the United States Environmental Protection Agency Region 3 (EPA) is issuing an Outer Continental Shelf (OCS) air quality permit to construct and operate Dominion Energy's proposed Coastal Virginia Offshore Wind Commercial (CVOW-C) Project. Dominion Energy is authorized to construct up to 176 wind turbine generators (WTGs) and up to 3 Offshore Substations (OSSs), all of which will be located within federal waters on the OCS, specifically in the Bureau of Ocean Energy Management (BOEM) Renewable Energy Lease Area OCS-A-0483 in the Wind Energy Area 24 nautical miles offshore Virginia.

The construction and operation of the offshore wind development area will be subject to the attached permit conditions and permit limitations. This Permit is effective on May 9, 2024, unless review is requested on the permit in accordance with 40 C.F.R. § 124.19 and shall remain in effect until it is surrendered to EPA. This Permit does not relieve Dominion Energy from the obligation to comply with applicable state and federal air pollution control rules and regulations.

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Adam Ortiz  
Regional Administrator

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4/9/2024  
Date of Issuance

**Acronyms and Abbreviation List**

<b>AAQS</b>	Ambient Air Quality Standards	<b>IAPP</b>	International Air Pollution Prevention
<b>BACT</b>	Best Available Control Technology	<b>KV</b>	Kilovolt
<b>BOEM</b>	Bureau of Ocean Energy Management	<b>KW</b>	Kilowatt
<b>CAA</b>	Clean Air Act	<b>MW</b>	Megawatt
<b>C.F.R.</b>	Code of Federal Regulations	<b>NM</b>	Nautical Miles
<b>CH<sub>4</sub></b>	Methane	<b>NMHC</b>	Non-methane Hydrocarbons
<b>CI ICE</b>	Compression Ignition Internal Combustion Engine	<b>NSR</b>	New Source Review
<b>CO</b>	Carbon Monoxide	<b>N<sub>2</sub>O</b>	Nitrous Oxide
<b>COA</b>	Corresponding Onshore Area	<b>NO<sub>2</sub></b>	Nitrogen Dioxide
<b>COC</b>	Certificates of Conformity	<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>CO<sub>2</sub></b>	Carbon Dioxide	<b>NOA</b>	Nearest Onshore Area
<b>CO<sub>2e</sub></b>	Carbon Dioxide Equivalent	<b>OCS</b>	Outer Continental Shelf
<b>CVOW-C</b>	Coastal Virginia Offshore Wind Commercial Project	<b>OCSLA</b>	Outer Continental Shelf Lands Act
<b>DEIS</b>	Draft Environmental Impact Statement	<b>O&amp;M</b>	Operations and Maintenance
<b>EAB</b>	Environmental Appeals Board	<b>OSS</b>	Offshore Substation
<b>EEDI</b>	Energy Efficiency Design Index	<b>Pb</b>	Lead
<b>ECA</b>	Emission Control Area	<b>PM</b>	Particulate Matter
<b>EIAPP</b>	Engine International Air Pollution Prevention	<b>PM<sub>10</sub></b>	Particulate Matter with an Aerodynamic Diameter ≤ 10 Microns
<b>EJ</b>	Environmental Justice	<b>PM<sub>2.5</sub></b>	Particulate Matter with an Aerodynamic Diameter ≤ 2.5 Microns
<b>EPA</b>	United States Environmental Protection Agency	<b>PSD</b>	Prevention of Significant Deterioration
<b>EU ID</b>	Emission Unit Identification	<b>PTE</b>	Potential to Emit
<b>EUG</b>	Emission Unit Group	<b>RPM</b>	Revolutions Per Minute
<b>GCOPP</b>	Good Combustion and Operation Practices	<b>SEEMP</b>	Ship Energy Efficiency Management Plan
<b>GIS</b>	Gas Insulated Switchgear	<b>SER</b>	Significant Emission Rate
<b>g/kW-hr</b>	Grams per Kilowatt-Hour	<b>SF<sub>6</sub></b>	Sulfur Hexafluoride
<b>g/hp-hr</b>	Grams per Horsepower-Hour	<b>SIL</b>	Significant Impact Levels
<b>H<sub>2</sub>SO<sub>4</sub></b>	Sulfuric Acid	<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>HAP</b>	Hazardous Air Pollutant	<b>SSB</b>	State Seaward Boundary
<b>HC</b>	Hydrocarbon	<b>THC</b>	Total Hydrocarbon
<b>HV</b>	High Voltage	<b>TPD</b>	Tons Per Day
		<b>TPY</b>	Tons Per Year
		<b>U.S.C.</b>	United States Code
		<b>VADEQ</b>	Virginia Department of Environmental Quality
		<b>VOC</b>	Volatile Organic Compounds
		<b>WDA</b>	Wind Development Area
		<b>WTG</b>	Wind Turbine Generator

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

The Virginia Electric and Power Company, doing business as Dominion Energy Virginia (Dominion Energy, the Permittee), has applied for a preconstruction permit for a new project to construct up to 176 WTGs and WTG Foundations, three OSSs and OSS Foundations, inter-array cables connecting the WTGs and OSSs, all of which will be located within federal waters on the OCS, specifically in the BOEM Renewable Energy Lease Area OCS-A 0483 and up to nine Offshore Export Cables, which will be located within federal waters on the OCS and within state waters. Once operational, the project is anticipated to have a production capacity between 2,500 and 3,000 megawatts (MW) of renewable energy.

The CVOW-C Project is a major Prevention of Significant Deterioration (PSD) stationary source for New Source Review (NSR) pollutants for which the Corresponding Onshore Area (COA) is designated attainment or unclassifiable. The COA for CVOW-C is designated to the Commonwealth of Virginia. Within the COA, the Nearest Onshore Area (NOA) for the Project, Northampton County, Virginia, is designated as attainment for all National Ambient Air Quality Standards (NAAQS) and Ambient Air Quality Standards (AAQS).

This project triggers PSD review because the emissions of at least one NSR pollutant for the stationary source exceeds the PSD major source thresholds. Certain State requirements incorporated by reference into 40 C.F.R. Part 55 apply to OCS sources located within 25 nautical miles (NM) of the State Seaward Boundary (SSB). Both Virginia requirements that have been incorporated by reference as set forth in 40 C.F.R. § 55.14 and federal requirements, as set forth in 40 C.F.R. § 55.13, apply to the portion of the CVOW-C Project located within 25 NM of Virginia's SSB while only federal requirements as set forth in 40 C.F.R. § 55.13 apply to the portion of the Project that is located beyond 25 NM of the SSB.

Based on the emission levels for the CVOW-C project, nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOC), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), particulate matter (PM), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM<sub>10</sub>), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM<sub>2.5</sub>), and greenhouse gases (GHGs) are the regulated NSR pollutants that will be emitted by the Project in quantities exceeding the respective PSD Significant Emission Rate (SER). The pollutants from this Project subject to the best available control technology (BACT) are NO<sub>x</sub>, VOC, CO, SO<sub>2</sub>, PM, PM<sub>10</sub>, PM<sub>2.5</sub>, and GHGs.

The CVOW-C Project is not subject to Virginia's minor NSR program for any pollutant because, for the regulated NSR pollutants, it is either subject to the major PSD program or expected to emit at levels below Virginia's minor NSR program thresholds.

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

Federal and Virginia requirements require the CVOW-C Project to apply BACT to the new emission units proposed in the project which emit NO<sub>x</sub>, VOC, CO, SO<sub>2</sub>, PM, PM<sub>10</sub>, PM<sub>2.5</sub>, and GHGs. The following tables are a narrative description of the proposed equipment in the Permit application for the CVOW-C Project. The list of equipment and descriptions are not enforceable terms or conditions of the Permit.

The Project's emission sources will primarily be compression-ignition internal combustion engines (CI ICE). These include engines on vessels while operating as OCS source(s) and engines on the WTGs and OSSs. The high-voltage (245 kilovolts) gas insulated switchgears (GISs) on the OSSs have the potential to emit sulfur hexafluoride (SF<sub>6</sub>), which is considered a GHG. Per the Permit application, the Permittee has stated that the GISs located at the base of the WTGs will not utilize SF<sub>6</sub>. Therefore, the GISs located on the OSSs are the only emission sources of SF<sub>6</sub>.

**EUG 1 Marine Engines on Vessels when Operating as OCS Source(s)**

The Permittee identified three jack-up vessels that have the potential to become OCS source(s) and are subject to BACT requirements. The Charybdis jack-up vessel (EU ID Main WTG Installation Vessel) will be used for WTG installation during construction and infrequent maintenance and repairs during Operation and Maintenance (O&M). In the event the Charybdis vessel is unavailable, as discussed in Section IV(B)(6), an alternate jack-up vessel (EU ID Alternative WTG Installation Vessel) may be used for WTG installation during construction and infrequent maintenance and repairs during O&M. The third vessel that has the potential to be an OCS source is the jack-up vessel (EU ID WTG Foundation Installation Vessel) used to install WTG transition pieces during construction in lieu of a Dynamic Position Vessel.

The Permittee does not expect other marine vessels used for the construction and O&M of the CVOW-C Project will become OCS source(s). Specifications included in the below tables are for informational purposes only and do not form enforceable terms or conditions of the Permit. The actual OCS source vessels used and rated capacity may vary. The Permittee identified the following marine vessels as potential OCS source(s) subject to BACT requirements.

EU ID	Vessel Purpose	Engine Type	Engine Count	Engine Rating (hp)
Main WTG Installation Vessel (Charybdis)	Jack-up vessel used to install WTG components above the transition piece and perform maintenance.	Main Generator	6	6,434
		Emergency Generator	1	1,800
Alternative WTG Installation Vessel	Jack-up vessel used to install WTG components above the transition piece and perform maintenance, if the Charybdis vessel becomes unavailable.	Main Generator	6	4,477
		Emergency Generator	1	1,340
WTG Foundation Installation Vessel	Jack-up vessel used to install WTG transition piece on to WTG monopile.	Main Generator	6	4,021

## EUG 2 Offshore Engines on OSSs and WTGs

Diesel generators will be used for the construction and operation of the CVOW-C Project. During construction, one non-emergency generator (EU ID CVOW-1 through CVOW-3) will be located on each OSS to provide power to construction equipment and ancillary activities. Ten non-emergency generators (EU ID CVOW-4 through CVOW-13) will be used at the OSSs, and ten non-emergency generators (EU ID CVOW-14 through CVOW-23) will be used at the WTGs to support the cable terminating activities.

During construction and operation, one permanent generator (EU ID CVOW-42 through CVOW-44) will be located on each OSS. The three permanent generators will be used for non-emergency purposes during commissioning and emergency purposes during operations. The Permittee may also use up to 18 portable generators (EU ID CVOW-24 through CVOW-41) located on WTG platforms to provide emergency power during WTG commissioning and operations. The portable generators will be used to recharge the WTG batteries in the event that onshore grid power is unavailable and wind speeds are below operational thresholds for the WTGs to operate normally.

EU ID	Type of Equipment	Description	Engine Count	Engine Rating
<b>Construction Equipment</b>				
CVOW-1 through CVOW-3	Portable Non-emergency Diesel Generator	Temporary Non-emergency Cable Pull-In Winch/ Auxiliary Tools Diesel Generator on OSS used for Offshore OSS and Array Cable Installation	3	80 hp
CVOW-4 through CVOW-13	Portable Non-emergency Diesel Generator	Temporary Non-emergency Inter-Array Cable Termination Diesel Generator on OSS used for Offshore OSS Installation	10	20 hp
CVOW-14 through CVOW-23	Portable Non-emergency Diesel Generator	Temporary Non-emergency Inter-Array Cable Termination Diesel Generator at the WTG used for WTG Installation	10	20 hp
<b>Construction &amp; Operating Equipment</b>				
CVOW-24 through CVOW-41	Portable Emergency Diesel Generator	Temporary Emergency Portable Diesel Generator on the WTG Platform used for WTG Battery Charging	18	160 hp
CVOW-42 through CVOW-44	Permanent Non-emergency Diesel Generator	Permanent Non-emergency Diesel Generator on OSS used for WTG commissioning during Construction and back-up (emergency) purposes during O&M	3	563 kW

**EUG 3 High Voltage (HV) Gas Insulated Switchgear (GIS) on the OSS**

The high-voltage gas insulated switchgears (GIS) on the OSSs have the potential to emit SF<sub>6</sub>, which is considered a GHG. Per the Permit application, the Permittee has stated that the WTGs will not utilize SF<sub>6</sub> within the switchgears, which are located at the base of the turbine. Therefore, only the HV GISs located on the OSS are required to apply BACT for SF<sub>6</sub>.

<b>EU ID</b>	<b>Description</b>	<b>Insulating Gas Type</b>	<b>Count (# GIS)</b>
HV-GIS	HV GIS (245 kV) on OSS	SF <sub>6</sub>	9



### Support Vessels Potentially Included in the OCS Source Potential Emissions

The vessels servicing or associated with an OCS source while at the source, and while enroute to or from the source when within 25 NM of the source, must be included in the OCS source’s potential emissions. For purposes of calculating potential emissions from the OCS source in this Permit, the Permittee shall calculate emissions within a 25 NM square boundary around the centroid of the OCS source. The following vessels are not part of the OCS source, and are thus not subject to BACT requirements, but are representative of the types of vessels that will be included in calculating the OCS source’s potential emissions. The actual vessels used may vary.

Vessel Type	Vessel Purpose	Engine Type	Engine Count	Engine Rating(hp)
Fall Pipe Vessel	Foundation Installation	Main Generator	4	3,861
		Aux. Generator	1	1,332
		Emergency Generator	1	253
Heavy Lift Vessel	Foundation, OSS Jacket, and OSS Topside Installation	Main Engines	4	13,820
		Aux. Generators	2	1,488
Heavy Lift Vessel	Foundation Installation	Vibrohammer Engines	2	3,029
		Impact Hammer Engines	2	1,001
Bubble Curtain Vessel	Foundation and OSS Jacket Installation	Main Engines	2	7,725
		Main Generators	4	3,862
Noise Monitoring Vessel	Foundation and OSS Jacket Installation	Main Engines	2	1,200
		Main Generators	2	36
Tug 1 for MP/TP Barges	Foundation, Nearshore Export Cable, and OSS Topside Installation	Main Engines	2	3,245
		Main Generators	2	289
		Emergency Generator	1	133
Tug 2 for MP/TP Barges	Foundation and WTG Installation	Main Engines	2	3,245
		Main Generators	2	289
		Emergency Generator	1	133
MP/TP Barge	Foundation and Nearshore Export Cable Installation	Ballast Pumps	12	44
Heavy Lift Deck Carrier	OSS Jacket and OSS Topside Installation	Main Engines	2	3,862
		Main Generators	2	5,150
		Aux. Generator	1	1,333
		Aux. Generator	1	806
Assist Tugboat	OSS Jacket, Topside, Nearshore Export Cable, and WTG Installation	Main Engines	2	2,675
		Aux. Generators	2	201

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Vessel Type	Vessel Purpose	Engine Type	Engine Count	Engine Rating(hp)
Cable Lay Vessel	Nearshore Export Cable Installation	Main Generators	4	1,332
		Crane Engine	1	536
		Emergency Generator	1	361
Cable Lift	Nearshore Export Cable Installation	Main Engines	2	2,682
		Main Generators	2	288
		Main Crane Engine	1	1,150
		Aux. Crane Engines	2	490
Pre-Lay Grapnel Run Vessel	Nearshore Export Cable Installation	Main Engines	2	3,000
		Main Generators	2	341
		Main Generators	2	1,878
		Emergency Generators	1	120
Pre-Lay Survey Vessel	Nearshore and Farshore Export Cable Installation	Main Engines	2	2,347
		Aux. Generators	2	536
Cable Lay Vessel	Farshore Export Cable and Inter Array Cable Installation	Main engines	2	5,791
		Main engines	2	3,861
		Aux. Gen	1	1,333
		Emergency Gen	1	588
Cable Lay Vessel	Farshore Export Cable Installation	Main Engines	4	6,327
		Aux. Generators	2	1,984
Offshore Jointing Vessel	Nearshore Export Cable and Inter Array Cable Installation	Main Engines	4	800
		Main Generators	2	32
Burial Tool	Inter Array Cable Installation	Cable Burial Tool	1	588
Multi-Purpose Service Vessel	Inter Array Cable Installation	Main Engines	4	2,446
Pre-Lay Grapnel Run Vessel	Inter Array Cable Installation	Main Engines	2	450
		Main Generators	2	80
Pre-Lay Survey Vessel	Inter Array Cable Installation	Main Engines	2	1,400
Post-Lay Survey Vessel	Inter Array Cable Installation	Main engines	2	5,791
		Main engines	2	3,861
		Aux. Generator	1	1,333
		Emergency Generator	1	588
Walk-to-Work Vessel	WTG Installation	Main Generators	4	1,609
		Aux. Generator	1	1,072
		Emergency Generator	1	201

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<b>Vessel Type</b>	<b>Vessel Purpose</b>	<b>Engine Type</b>	<b>Engine Count</b>	<b>Engine Rating(hp)</b>
WTG Barge	WTG Installation	Ballast Pumps	12	44
Sandwave Dredging Vessel	Support Vessel	Tugboat Main Engines	2	7,831
		Tugboat Harbor Generator	1	979
		Tugboat Emergency Generator	1	737
Sandwave Dredging Vessel	Support Vessel	Dredger Pump Engines	2	5,000
		Dredger Harbor Generator	1	1,220
Boulder Picking Vessel	Support Vessel	Main Engines	2	5,440
		Harbor Generator	1	456
		Emergency Generator	1	168
Boulder Ploughing Vessel	Support Vessel	Main Engines	2	1,920
		Main Generators	2	228
Safety Vessel	Support Vessel	Main Engines	2	660
		Main Generators	2	27

### **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 Virginia regulations in 9 VAC5-10-20 incorporated by reference into 40 C.F.R. Part 55).

*12-Month Rolling Total Emissions* means the facility-wide rolling total emissions for a 12-month period that are calculated and recorded within 7 days of the end of each calendar month. The Permittee will calculate and record the tons of each air pollutant emitted by all emission sources identified in Section IV.A.6. by adding the Daily Emissions for each emission source for that month within 7 days of the end of the month. Daily Emissions for that month will then be added to the tons of the corresponding air pollutant from the previous 11 months to get the 12-month rolling total tons of each air pollutant.

*Air Pollutant* shall have the same meaning as that term has within 42 U.S. Code § 7602(g).

*Barge* means a vessel having a flat-bottomed rectangular hull and built with or without a propulsion engine designed to transport goods, equipment, or passengers.

*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.

*Commercial operation* means the generation of electricity or other energy product for commercial use, sale, or distribution on a commercial lease, as defined in 30 C.F.R. § 585.113.

*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 vessel, equipment, or activity, that meets the definition of an OCS source, operates, occurs, or exists in the WDA.

*Crew Transfer Vessel* means a self-propelled vessel used to shuttle personnel to and from off-shore and in-harbor locations (including, but not limited to, off-shore work platforms, construction sites, and other vessels).

*Daily Emissions* means the facility-wide daily emissions from all emission sources identified in Section IV.A.7. that are calculated and recorded no less frequently than every 7 days.

*Day* shall mean calendar day whether or not expressly identified and includes weekends and federal holidays.

*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 emit 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.

*Fall Pipe Vessel* means a vessel used to transport, dump, or install rocks on the seafloor.

*Heavy Lift Vessel* means a vessel used to transport and lift large loads.

*Jack-Up Vessel* means a vessel (whether self-propelled or not) that includes legs and a lifting system that enables the vessel to lower its legs into the seabed and elevate its hull to provide a stable work deck.

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, of process equipment, or of a process to operate in a normal or usual manner, which failure is not due to intentional misconduct or negligent conduct on the part of the owner or other person. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

*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 its 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.

*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 (WDA) 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 meets the requirements outlined in 40 C.F.R. § 55.2:

- 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.

Additionally, an OCS Source Vessel must be:

- i) 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
- ii) Physically attached to an OCS facility, in which case only the stationary source aspects of the vessels will be regulated.

*Offshore Substations (OSSs)* serve as the common interconnection point for the power generated by the WTGs and increases the voltage for transmission to the onshore electrical grid. The WTG will interconnect with an OSS via the 300-mile-long inter-array cable system. Each OSS has a nominally rated capacity of 880 MW. The OSSs will have high-voltage circuit breakers (245 kV) to increase the voltage level and transmit electricity through the offshore cable system to the final connection point to the onshore bulk power grid.

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

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

*Permittee* includes Dominion Energy; its successor(s) in 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.

*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.

*Tier 1* means relating to the Tier 1 emission standards, as shown in Appendix I to 40 C.F.R. Part 1042.

*Tier 2* means relating to the Tier 2 emission standards, as shown in 40 C.F.R. § 1042.104 and Appendix I to 40 C.F.R. Part 1042.

*Tier 3* means relating to the Tier 3 emission standards, as shown in 40 C.F.R. § 1042.101 and § 1042.104.

*Tier 4* means relating to the Tier 4 emission standards, as shown in 40 C.F.R. § 1042.101.

*Tugboat* 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, ocean-going or long-haul tugboats, and barge tugboats. "Tugboat" is interchangeable with "towboat" and "push boat" when the vessel is used in conjunction with barges.

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

*Wind Development Area (WDA)* is the BOEM Lease construction Area OCS-A-0483, located on the OCS. The Project lease area covers 112,799 acres, located in federal waters off the Virginia coast. At its nearest points, the WDA is approximately 20.45 NM southeast of the Virginia coastline. At its farthest points, the WDA is approximately 37.5 NM east from the Virginia Beach coastline. Note that the term WDA is used before an individual OCS source is established. Once the first OCS source is established in the WDA, the entire WDA is considered the OCS facility.

*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 or permit to be discharged into the atmosphere from the operation of any OCS source any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 30% opacity. Failure to meet the requirement because of the presence of water vapor shall not be in violation of this condition.

[40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 9VAC5-50-80]

2. All diesel-fueled compression ignition internal combustion engines subject to 40 C.F.R. Part 60, Subpart IIII with a displacement of less than 30 liters per cylinder shall be fired with diesel fuel not to exceed a maximum sulfur content of 15 parts per million (ppm).

[40 C.F.R. § 60.4207(b)]

3. All diesel-fueled compression ignition internal combustion engines subject to 40 C.F.R. Part 60, 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 ppm.

[40 C.F.R. § 60.4207(d)]

4. Other than EUG 1, EUG 2, and EUG 3, no vessel or equipment associated with the project (including the support vessels listed in Section II. Equipment of this Permit) shall permanently or temporarily attach to the seabed and erect thereon and be used for the purpose of exploring, developing, or producing resources therefrom, within the meaning of section 4(a)(l) of OCSLA (43 U.S.C. §1331 *et seq.*).

[40 C.F.R. § 52.21, 40 C.F.R. § 55.3, 40 C.F.R. § 55.14,  
Appendix A of 40 C.F.R. Part 55, 9VAC5-20-21, Article 8 of 9VAC5-80]

5. The Permittee shall not operate any stationary source aspect of any vessel, other than those identified in EUG 1, while any such vessel is attached to the OCS facility. If any vessel, other than those identified in EUG 1, does operate in such a manner as to meet the definition of an OCS source (as defined at 40 C.F.R. § 55.2), the Permittee shall timely submit a permit application and obtain an OCS Air Permit for the OCS source vessel prior to operation.

[40 C.F.R. § 52.21, 40 C.F.R. § 55.3, 40 C.F.R. § 55.14,  
Appendix A of 40 C.F.R. Part 55, 9VAC5-20-21, Article 8 of 9VAC5-80]



6. Emissions from the OCS source during Construction and O&M will be limited by, and contribute to, the facility-wide emission limits on NO<sub>x</sub>, VOC, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and GHGs identified in Section IV(A)(6) table below. These limits represent the Potential to Emit (PTE) of the OCS source. For purposes of compliance with the facility-wide emission limits, actual emissions of NO<sub>x</sub>, VOC, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and GHGs shall include emissions from the following:
- i) engines located on the OSS and/or WTG(s);
  - ii) engines on vessels that meet the definition of an OCS source;
  - iii) GISs on the OSS; and
  - iv) engines on vessels servicing or associated with the OCS source when those vessels are at the OCS source, or en route to or from the OCS source and are within the 25 NM square boundary around the OCS source’s centroid.

**OCS Source Facility-Wide Emission Limits (tons per year (tpy))<sup>1</sup>**

<b>Pollutant</b>	<b>Construction Phase</b>	<b>O&amp;M Phase</b>
<b>NO<sub>x</sub></b>	2,720.26	394.97
<b>VOC</b>	132.80	17.40
<b>CO</b>	1,348.48	223.49
<b>SO<sub>2</sub></b>	71.99	7.69
<b>PM<sub>10</sub></b>	98.82	11.45
<b>PM<sub>2.5</sub></b>	95.80	11.10
<b>GHGs (CO<sub>2</sub>e)</b>	250,451	39,784

<sup>1</sup> **12-month rolling total, calculated and recorded within 7 days of the end of each calendar month.** Note that the Construction Phase limits apply to construction and commissioning activities immediately upon commencement of the Construction Phase Start Date and ends the day when the last WTG to be constructed begins producing commercial power. The O&M Phase limits apply to operation and maintenance activities immediately upon commencement of the Operational Phase Start Date.

[40 C.F.R. § 52.21, 40 C.F.R. § 55.2, 40 C.F.R. §55.8, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, Article 8 of 9VAC5-80]

7. Emissions from the OCS source during Construction and O&M will be limited by, and contribute to, the daily emission limits on NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> identified in Section IV(A)(7) table below. These daily limits represent the modeled emission rates of the OCS source in the application and ensure compliance with the NAAQS and PSD increments. For purposes of compliance with the daily facility-wide emission limits, actual emissions of NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> shall include emissions from the following:
- i) engines located on the OSS and/or WTG(s);
  - ii) engines on vessels that meet the definition of an OCS source;
  - iii) GISs on the OSS; and
  - iv) engines on vessels servicing or associated with the OCS source when those vessels are at the OCS source, or en route to or from the OCS source and are within the 25 NM square boundary around the OCS source’s centroid.

**OCS Source Facility-Wide Daily Emission Limits (tons per day (tpd))<sup>1</sup>**

Pollutant	Construction Phase	O&M Phase
NO <sub>x</sub>	19.00	4.39
CO	8.76	3.53
SO <sub>2</sub>	0.46	0.24
PM <sub>10</sub>	0.72	0.15
PM <sub>2.5</sub>	0.70	0.14

<sup>1</sup>Tons per day limit, calculated and recorded every 7 days. Note that the Construction Phase limits apply to construction and commissioning activities immediately upon commencement of the Construction Phase Start Date and ends the day when the last WTG to be constructed begins producing commercial power. The O&M Phase limits apply to operation and maintenance activities immediately upon commencement of the Operational Phase Start Date.

[40 C.F.R § 51.166, 40 C.F.R. § 52.21, 40 C.F.R. § 55.2, 40 C.F.R. § 55.8, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, Article 8 of 9VAC5-80]

8. The Permittee shall calculate emissions of NO<sub>x</sub>, VOC, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and GHGs from the emission sources defined in Condition No. IV(A)(6) and NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> from the emission sources defined in Condition No. IV(A)(7) using the equation below.

$$E = ER \times U \times LF \times EF \times 1.10231 \times 10^{-6}$$

Where:

E = Emissions for a given engine per operating day (tons/day)

ER = Engine rating (kW or hp)

U = Engine usage per operating day (hours/day)

LF = Engine load factor per operating day =  $\frac{\text{Actual Fuel Rate (kg/hr)}}{\text{Maximum Fuel Rate (kg/hr)}}$

Actual Fuel Rate =  $\frac{\text{Actual fuel consumed by a given engine during operating day (kg)}}{\text{Engine operating time during operating day (hr)}}$

Maximum Fuel Rate = Maximum hourly fuel consumption rate for a given engine (kg/hr)

EF = Emission factor for a given engine (g/kW-hr or g/hp-hr)

$1.10231 \times 10^{-6}$  = grams to tons conversion factor

[40 C.F.R. § 55.8]

- i) For the OCS source (EUG 1, EUG 2, and EUG 3), the Permittee shall utilize emission factors from: EPA issued Certificate of Conformity (COC) for each 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, engine manufacturer specifications, or site-specific testing derived factors. Note that the engine emission standards may be presented as NO<sub>x</sub> + hydrocarbon (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<sub>x</sub> and 0.024 for either HC or THC (to determine the VOC ratio of the emissions which shall be calculated as 1.053 times the HC emission factors). Manufacturer's specifications that indicate specific NO<sub>x</sub>/HC ratios, or specific HC or VOC emission factors shall supersede any general assumptions presented here for purposes of the emission calculation demonstration.
- ii) For purposes of calculating emissions from vessels servicing or associated with an OCS source while at the source, and while enroute to or from the source when within the 25 NM square boundary around the centroid of the OCS source, the Permittee shall utilize emission factors from: engine manufacturer's specifications, engine manufacturer's testing data, or an applicable Engine International Air Pollution Prevention (EIAPP) or International Air Pollution Prevention (IAPP) certificate, containing associated engine Annex VI NO<sub>x</sub> standards.

- iii) For purposes of calculating emissions from vessels servicing or associated with an OCS source while at the source, and while enroute to or from the source when within the 25 NM square boundary around the centroid of the OCS source without a Certificate of Conformity, EIAPP certificate, or IAPP certificate, the Permittee shall utilize the most representative NO<sub>x</sub>, VOC, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and GHGs 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, the Permittee shall 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).
  - iv) 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) which 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 manufacturer's 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.
  - v) For OCS source(s) (EUG 1, EUG 2, and EUG 3), if the actual fuel usage data and engine hours are not recorded for that operating day, the Permittee shall assume 100% load (full rated hp (kW)) for the emission calculations.
  - vi) 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, the Permittee can utilize the most representative load factors based on the vessel type contained in the Port Emissions Inventory Guidance (EPA-420-b-22-011, April 2022).
9. Beginning at the Construction Phase Start Date, the Permittee shall incorporate daily emissions calculated in Section IV(A)(6) into the Construction Phase 12-month rolling total for NO<sub>x</sub>, VOC, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and GHGs, compiled within 7 days of the end of each calendar month. These emissions shall be summed from all the emission sources defined in Section IV(A)(6) for determining compliance with the Construction Phase facility-wide emissions cap. This requirement ends when the Construction Phase ends and the last WTG to be constructed begins producing commercial power.

[40 C.F.R. § 55.8]

10. Beginning at the Construction Phase Start Date, the Permittee shall incorporate emissions calculated in Section IV(A)(7) into the Construction Phase tons per day (tpd) sum for NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>, compiled no less frequently than every 7 days. These emissions shall be summed from all the emission sources defined in Section IV(A)(7) for determining compliance with the tpd emission limits. This requirement ends when the Construction Phase ends and the last WTG to be constructed begins producing commercial power.

[40 C.F.R. § 55.8]

11. Beginning at the Operation Phase Start Date, the Permittee shall incorporate daily emissions calculated in Section IV(A)(6) into the O&M Phase 12-month rolling total for NO<sub>x</sub>, VOC, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and GHGs, compiled within 7 days of the end of each calendar month. These emissions shall be summed from all the emission sources defined in Section IV(A)(6) for determining compliance with the O&M Phase facility-wide emissions cap.

[40 C.F.R. § 55.8]

12. Beginning at the Operational Phase Start Date, the Permittee shall incorporate emissions calculated in Section IV(A)(7) into the O&M Phase tpd sum for NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>, compiled no less frequently than every 7 days. These emissions shall be summed from all the emission sources defined in Section IV(A)(7) for determining compliance with the tpd emission limits.

[40 C.F.R. § 55.8]

- B. EUG 1—Marine Engines on Vessels when Operating as OCS Source(s):** The following requirements in Section IV(B) apply to all Marine Engines on Vessels when operating as OCS source(s). This includes propulsion, auxiliary, and emergency generator engines utilized in the construction and O&M phases of the project when operating as OCS source(s).
1. Marine Engines on Vessels when Operating as OCS source(s) shall be operated in accordance with the Good Combustion and Operating Practices (GCOP) Plan for the facility. The plan shall be incorporated into the facility Standard Operating Procedures (SOPs) and shall be made available for inspection. The plan specifically should include, but is not limited to:
    - i) A list of combustion optimization practices and a means of verifying the practices have occurred for each engine type based on the most recent manufacturer’s 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 BACT and verification that designs were implemented in the final construction.

[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 9VAC5-50-280, 9VAC5-80-1705]
  2. The Permittee shall ensure that all vessels operating as an OCS source comply with the applicable Energy Efficiency Design Index (EEDI) and Ship Energy Efficiency Management Plan (SEEMP) requirements of MARPOL Annex VI.

[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 9VAC5-50-280, 9VAC5-80-1705]
  3. When fueled at U.S. terminals, the approved fuel for Marine Engines on Vessels when Operating as OCS source(s) is ULSD fuel oil. The ULSD fuel shall have a maximum sulfur content of 15 ppm. When fueled outside the U.S., the approved fuel for Marine Engines on Vessels when Operating as OCS source(s) is Low-Sulfur Marine Gas Oil (LSMGO) with a maximum sulfur content of 1,000 ppm.

[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 9VAC5-50-280, 9VAC5-80-1705]

4. Each Category 1, Category 2, and Category 3 engine on vessels while operating as OCS source(s) shall comply with the applicable emission standards within 40 C.F.R. Part 60, Subpart IIII. Applicable provisions of 40 C.F.R. Part 60, Subpart IIII are determined by the engine model year, maximum engine power, and displacement.
  - i) Category 1 and Category 2 engines shall comply with the applicable NO<sub>x</sub>, HC, CO, and PM emission standards contained within 40 C.F.R. Part 60, Subpart IIII. Category 1 and Category 2 engines may be certified to the provisions contained within 40 C.F.R. Part 1042 to comply with the 40 C.F.R. Part 60, Subpart IIII requirements if the engines will solely be used in marine offshore locations.  
[40 C.F.R. § 60.4201(f)(2), 40 C.F.R. § 1042.101, 40 C.F.R. § 1042.101(a)(2)]
  - ii) Category 3 engines shall comply with the applicable NO<sub>x</sub> and PM emission standards contained within 40 C.F.R. Part 60, Subpart IIII.  
[40 C.F.R. § 60.4204(c)]

5. Each Category 1, Category 2, and Category 3 engine on vessels while operating as OCS source(s) shall comply with BACT emission limits derived from applicable emissions standards in 40 C.F.R. Part 60, Subpart IIII and shall meet the following emission standards within 40 C.F.R. Part 1042, as determined in paragraphs i) and ii) below.

i) The Category 1 and Category 2 engines shall meet the most stringent emission standards (e.g., Tier 3 or Tier 4), for the applicable engine category within 40 C.F.R. Part 1042, of the available vessels at the time the vessel is contracted. The engines may meet the next most stringent emission standards if the total emissions associated with the use of a vessel with an engine(s) that meet the most stringent emission standards would be greater than the total emissions associated with the use of the vessel with an engine(s) that meet the next most stringent emission standards. For purposes of this subparagraph, when determining the total emissions associated with the use of a vessel with a particular engine, the Permittee shall include the emissions of the vessel that would occur when the vessel would be in transit to the OCS source from the vessel's starting location. At a minimum, Category 1 and Category 2 engines shall comply with applicable NO<sub>x</sub>, HC, CO, and PM emission standards at 40 C.F.R. Part 60, Subpart IIII as well as NO<sub>x</sub>+THC (or NO<sub>x</sub>+NMHC for engines below 37 kW), CO, and PM emission standards equal to or cleaner than EPA Tier 2 standards contained within 40 C.F.R. Part 1042, Appendix I.

[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, Appendix I of 40 C.F.R. Part 1042, 9VAC5-50-280, 9VAC5-80-1705]

ii) The Category 3 engines shall meet the most stringent emission standards (e.g., Tier 3) for Category 3 engines within 40 C.F.R. Part 1042, of the available vessels at the time the vessel is contracted. The engines may meet the next most stringent emission standards if the total emissions associated with the use of a vessel with an engine(s) that meet the most stringent emission standards would be greater than the total emissions associated with the use of the vessel with an engine(s) that meet the next most stringent emission standards. For purposes of this subparagraph, when determining the total emissions associated with the use of a vessel with a particular engine, the Permittee shall include the emissions of the vessel that would occur when the vessel would be in transit to the OCS source from the vessel's starting location. At a minimum, Category 3 engines shall comply with applicable NO<sub>x</sub> and PM emission standards at 40 C.F.R. Part 60, Subpart IIII and CO and HC emission standards equal to or cleaner than EPA Tier 2 standards contained within 40 C.F.R. Part 1042.104.

[40 C.F.R. §52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 40 C.F.R. § 1042.104, 9VAC5-50-280, 9VAC5-80-1705]



6. Main WTG Installation Vessel (Charybdis) and Alternative WTG Installation Vessel – During construction, operation, and maintenance, the Charybdis Vessel shall be the sole vessel authorized to operate as an OCS source for activities requiring a jack-up vessel for purposes of installing WTG components above the transition piece during the Construction Phase or performing maintenance and repair work during O&M, except:
  - i) If, during either the Construction Phase or O&M, the Charybdis is undergoing repair or otherwise not mechanically capable of performing the work required, the Permittee may contract an alternative jack-up vessel to operate as an OCS source provided:
    - a. The Permittee notifies the EPA in writing within 24 hours of obtaining the alternate vessel. The notification must include the reason for and expected duration of the Charybdis' unavailability.
    - b. Each notification shall be signed by the Responsible Official, and shall be submitted with the following certification:

*“This information was prepared either by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my evaluation, or the direction and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, I hereby certify under penalty of law, to the best of my knowledge and belief, this information is true, accurate, and complete. I understand that there are significant penalties for submitting false, inaccurate, or incomplete information to the United States.”*
  - ii) If, during the O&M Phase, the Charybdis is mechanically capable of performing the work required, but is legally contracted to perform services at a separate project that make it unavailable during a period of time that would substantially interfere with necessary operations and maintenance activities at CVOW-C, the Permittee may contract an alternative jack-up vessel to operate as an OCS source provided:
    - a. The Permittee notifies the EPA in writing within 24 hours of obtaining the alternate vessel. The notification must include the reason for and expected duration of the Charybdis' unavailability and whether or not Dominion could reasonably reschedule O&M activities to a period when the Charybdis is available.
    - b. Each notification shall be signed by the Responsible Official, and shall be submitted with the following certification:

*“This information was prepared either by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my evaluation, or the direction and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, I hereby certify under penalty of law, to the best of my knowledge and belief, this information is true, accurate, and complete. I understand that there are*

*significant penalties for submitting false, inaccurate, or incomplete information to the United States.”*

[40 C.F.R. § 52.21, 40 C.F.R. § 55.8, 40 C.F.R. § 55.14,  
Appendix A of 40 C.F.R. Part 55, 9VAC5-50-280, 9VAC5-80-1705]

7. Main WTG Installation Vessel (Charybdis) – The only approved fuel for the Emergency Generator Engine on the Charybdis Vessel is ULSD fuel oil.  
[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55,  
9VAC5-50-280, 9VAC5-80-1705]
  
8. Main WTG Installation Vessel (Charybdis) – The Main Marine Engines on the Charybdis Vessel, while operating as an OCS source, shall comply with 40 C.F.R. Part 60, Subpart IIII emission standards for Category 3 Marine Engines. Note that the final NO<sub>x</sub> emission standard will depend on the specific engine and is calculated by multiplying  $9.0 \cdot n^{-0.20}$  g/kW-hr ( $6.7 \cdot n^{-0.20}$  g/hp-hr) where n (maximum engine speed) is 130 revolutions per minute (rpm) or more but less than 2,000 rpm.  
NO<sub>x</sub> 2.4 g/kWh  
PM 0.15 g/kWh  
[40 C.F.R. § 52.21, 40 C.F.R. § 60.4204(c)(3)(ii) & (4)]
  
9. Main WTG Installation Vessel (Charybdis) – The Main Marine Engines on the Charybdis Vessel, while operating as an OCS source, shall meet the following BACT emission standards for Category 3 Marine Engines certified to the EPA Tier 3 standards specified within 40 C.F.R. §1042.104 and emission standards within 40 C.F.R. Part 60.4204:  
NO<sub>x</sub> 2.4 g/kWh  
PM 0.15 g/kWh  
VOC 2.0 g/kWh  
CO 5.0 g/kWh  
[40 C.F.R. §52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55,  
40 C.F.R. § 60.4204(c)(3)(ii) & (4), 40 C.F.R. § 1042.104, 9VAC5-50-280, 9VAC5-80-1705]
  
10. Main WTG Installation Vessel (Charybdis) – The Emergency Generator Engine on the Charybdis Vessel, while operating as an OCS source, shall comply with 40 C.F.R. Part 60, Subpart IIII emission standards for Category 1 and Category 2 Marine Engines. Note that the applicable emission standards will depend on the specific engines and the associated maximum engine power, displacement, and model year. Tier 4 emission standards apply to engines at or above 600 kW.  
NO<sub>x</sub> 1.8 g/kWh  
VOC 0.19 g/kWh  
PM 0.04 g/kWh  
CO 5.0 g/kWh  
[40 C.F.R. § 60.4201, 40 C.F.R. § 1042.101]

11. Main WTG Installation Vessel (Charybdis) – The Emergency Generator Engine on the Charybdis Vessel, while operating as an OCS source, shall meet the following BACT emission standards for Category 1 and Category 2 Marine Engines certified to the EPA Tier 4 emission standards and CO emission standard specified within 40 C.F.R. § 1042.101:

NO<sub>x</sub> 1.8 g/kWh

VOC 0.19 g/kWh

PM 0.04 g/kWh

CO 5.0 g/kWh

[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55,  
40 C.F.R. § 60.4201, 40 C.F.R. § 1042.101, 9VAC5-50-280, 9VAC5-80-1705]

- C. **EUG 2—OCS Generator Engine(s) Located on the OSS(s) and/or WTG(s):** The requirements in Section IV(C) apply to OCS generator engines located on the OSS(s) and/or WTG(s). This includes OCS generator engines utilized in both construction and operation phases on the OSS(s) and WTG(s).
1. OCS Generator Engine(s) on the OSS(s) and/or WTG(s) shall be operated in accordance with the GCOP for the facility. The plan shall be incorporated into the facility SOPs and shall be made available for inspection. The plan specifically should include, but is not limited to:
    - i) A list of combustion optimization practices and a means of verifying the practices have occurred for each engine type based on the most recent manufacturer’s 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 BACT and verification that designs were implemented in the final construction.

[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 9VAC5-50-280, 9VAC5-80-1705]
  2. The approved fuel for the OCS Generator Engine(s) on the OSS(s) and WTG(s) is ULSD fuel oil.

[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 9VAC5-50-280, 9VAC5-80-1705]

3. OCS Generator Engine(s) on the OSS(s) and/or WTG(s) shall comply with 40 C.F.R. Part 60, Subpart IIII emission standards and be certified to meet the following relevant Tier 4 Exhaust Emission Standards from Table 1 of 40 C.F.R. § 1039.101 for engines built after the 2014 model year, dependent on the final selected engine size and associated displacement:

Maximum Engine Power	Application	NO <sub>x</sub> + NMHC g/kW-hr	NO <sub>x</sub> g/kW-hr	NMHC g/kW-hr	CO g/kW-hr	PM g/kW-hr
kW < 19	All	7.5	-	-	6.6 <sup>a</sup>	0.40
19 ≤ kW < 56	All	4.7	-	-	5.0 <sup>b</sup>	0.03
56 ≤ kW < 130	All	-	0.40	0.19	5.0	0.02
130 ≤ kW ≤ 560	All	-	0.40	0.19	3.5	0.02
kW > 560	Generator Sets	-	0.67	0.19	3.5	0.03
kW > 560	All Except Generator Sets	-	3.5	0.19	3.5	0.04

<sup>a</sup> The CO standard is 8.0 g/kW-hr for engines below 8 kW.

<sup>b</sup> The CO standard is 5.5 g/kW-hr for engines below 37 kW.

[40 C.F.R. § 60.4201(a), 40 C.F.R. § 1039.101(b)]

4. CVOW-1 through CVOW-3 Portable Non-emergency Diesel Generator (80 hp) – During the Construction Phase, each of the three (3) temporary diesel engines shall comply with the BACT emission standards and meet the EPA Tier 4 nonroad engine standards from 40 C.F.R. § 1039.101 below:

NO<sub>x</sub> 0.40 g/kWh

NMHC 0.19 g/kWh

CO 5.0 g/kWh

PM 0.02 g/kWh

[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 40 C.F.R. § 1039.101 (Table 1), 9VAC5-50-280, 9VAC5-80-1705]

5. CVOW-4 through CVOW-13 Portable Non-emergency Diesel Generator (20 hp) – During the Construction Phase, each of the ten (10) temporary diesel engines on the OSSs shall comply with the BACT emission standards and meet the EPA Tier 4 nonroad engine standards from 40 C.F.R. § 1039.101 below:
  - NO<sub>x</sub>+ NMHC 7.5 g/kWh
  - CO 6.6 g/kWh
  - PM 0.40 g/kWh[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 40 C.F.R. § 1039.101 (Table 1), 9VAC5-50-280, 9VAC5-80-1705]
  
6. CVOW-14 through CVOW-23 Portable Non-emergency Diesel Generator (20 hp) – During the Construction Phase, each of the ten (10) temporary diesel engines at the WTGs shall comply with the BACT emission standards and meet the EPA Tier 4 nonroad engine standards from 40 C.F.R. § 1039.101 below:
  - NO<sub>x</sub>+ NMHC 7.5 g/kWh
  - CO 6.6 g/kWh
  - PM 0.40 g/kWh[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 40 C.F.R. § 1039.101 (Table 1), 9VAC5-50-280, 9VAC5-80-1705]
  
7. CVOW-24 through CVOW-41 Portable Emergency Diesel Generator (160 hp) – During the Construction and O&M Phase, each of the eighteen (18) temporary diesel engines at the WTGs shall comply with the BACT emission standards and meet the EPA Tier 4 nonroad engine standards from 40 C.F.R. § 1039.101 below:
  - NO<sub>x</sub> 0.40 g/kWh
  - NMHC 0.19 g/kWh
  - CO 5.0 g/kWh
  - PM 0.02 g/kWh[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 40 C.F.R. § 1039.101 (Table 1), 9VAC5-50-280, 9VAC5-80-1705]
  
8. CVOW-42 through CVOW-44 Permanent Non-emergency Diesel Engines (563 kW) – During the Construction and O&M phase, each of the three (3) permanent diesel engines on the OSSs shall comply with the BACT emission standards and meet the EPA Tier 4 nonroad non-emergency engine standards from 40 C.F.R. § 1039.101 below:
  - NO<sub>x</sub> 0.67 g/kWh
  - NMHC 0.19 g/kWh
  - CO 3.5 g/kWh
  - PM 0.03 g/kWh[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 40 C.F.R. § 1039.101 (Table 1), 9VAC5-50-280, 9VAC5-80-1705]

9. CVOW-42 through CVOW-44 Permanent Non-emergency Diesel Engines (563 kW) – During the Construction Phase, the three (3) permanent diesel engines on the OSSs will be used for non-emergency purposes. The three (3) non-emergency generators each shall not operate more than 7,320 hours per year, calculated on a 12-month rolling total basis. Compliance for the consecutive 12-month period shall be demonstrated within 7 days of the end of each calendar month by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 9VAC5-50-280, 9VAC5-80-1705]

10. CVOW-42 through CVOW-44 Permanent Non-emergency Diesel Engines (563 kW) – During the O&M Phase, the three (3) permanent diesel engines on the OSSs are only allowed to be used for emergency purposes. The three (3) generators each shall not operate more than 100 hours per year for non-emergency purposes, which includes maintenance and readiness testing, calculated on a 12-month rolling total basis. Compliance for the consecutive 12-month period shall be demonstrated within 7 days of the end of each calendar month by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 9VAC5-50-280, 9VAC5-80-1705]

D. **EUG 3—HV GIS on the OSS:** The following requirements in Section IV(D) apply to the HV GISs on the OSSs.

1. Permittee shall install, operate, and maintain enclosed-pressure SF<sub>6</sub> circuit breakers with low pressure alarms that are triggered when 10% of the SF<sub>6</sub> (by weight) has escaped from the HV GIS on the OSS. Compliance shall be demonstrated with a copy of the manufacturer's specifications onsite and periodic alarm testing procedures in the frequency specified within those specifications.

[40 C.F.R. § 52.21, 40 C.F.R. § 55.14,  
Appendix A of 40 C.F.R. Part 55, 9VAC5-50-280, 9VAC5-80-1705]

2. Upon a detectable pressure drop that is 10% percent of the original pressure (accounting for ambient air conditions), perform maintenance on an SF<sub>6</sub>-insulated electrical switchgear to fix seals as soon as possible but no later than 14 days after the detection of the pressure drop. If maintenance and repair cannot occur within 14 days of leak detection, then the Permittee shall divert power from the affected GIS and isolate the leak until the seals can be fixed. 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.

[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55,  
9VAC5-50-280, 9VAC5-80-1705]

3. Leak rate of SF<sub>6</sub> shall not exceed 0.5% per year from the HV GISs on the OSS. The facility shall demonstrate compliance with this requirement by mass balance and account for leakage periods.

[40 C.F.R. § 52.21, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55,  
9VAC5-50-280, 9VAC5-80-1705]



**SECTION V. Operating Requirements and Work Practice Standards**

- A. The Permittee must operate and maintain all engines to achieve the emissions standards at 40 C.F.R. § 60.4204(b) over the entire life of the engine.  
[40 C.F.R. §60.4206]
- B. The Permittee shall install and operate all engines that are certified by the manufacturer to meet or surpass the emission standards in 40 C.F.R. § 60.4204(b) or § 60.4205(b) as specified in this Permit.  
[40 C.F.R. § 60.4211(c)]
- C. The Permittee shall operate and maintain all engines and control devices according to the manufacturer’s emission-related written instructions.  
[40 C.F.R. § 60.4211(a)(1)]
- D. The Permittee shall only change emission-related settings on the engines that are permitted by the manufacturer.  
[40 C.F.R. § 60.4211(a)(2)]
- E. The Permittee shall install and operate the engines configured according to the manufacturer’s emission-related specifications.  
[40 C.F.R. § 60.4211(c)]
- F. The Permittee shall comply with all applicable requirements of 40 C.F.R. Part 60, Subpart IIII, New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (CI ICE), except to the extent EPA has granted a request for exemption from such requirements under 40 C.F.R. § 55.7.  
[40 C.F.R. § 55.7, 40 C.F.R. § 55.13(c),  
40 C.F.R. Part 60, Subpart IIII (§60.4200–60.4219, Table 1–Table 8)]
- G. 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 (CI ICE).  
[40 C.F.R. Part 63, Subpart ZZZZ (§63.6580–63.6675,  
Table 1–Table 8, Appendix A to Subpart ZZZZ)]

## SECTION VI. 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, 40 C.F.R. § 55.8, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 40 C.F.R. Part 60, Subpart A, 9VAC5-50-280, 9VAC5-40-30]

- B. For each engine operating on OCS source vessels identified in EUG 1, the Permittee shall conduct a visible emission test for 30 consecutive minutes using the EPA test Method 22 when the vessel is operating as an OCS source, once per 30 operating days. 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.

[40 C.F.R. § 52.21, 40 C.F.R. § 55.8, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 40 C.F.R. § 60.11, 9VAC5-50-280]

- C. EUG 1 – The Permittee shall determine compliance with the applicable 40 C.F.R. Part 60, Subpart IIII NO<sub>x</sub> and PM emission standards specified in this Permit for each of the Category 3 marine engines as follows:

1. Conducting an initial performance test to demonstrate initial compliance with the emission standards, and annual performance tests, thereafter in accordance with 40 C.F.R. § 60.4211(d)(1) and (d)(3). This compliance requirement shall apply unless and until such time as the Permittee requests a waiver for performance test requirements pursuant to 40 C.F.R. § 60.8(b)(4) and EPA grants such a request.
2. Establishing operating parameters to be monitored continuously to ensure that the engines continue to meet the emission standards according to the provisions specified in § 60.4211(d)(2).

[40 C.F.R. § 60.4211(d)]

## SECTION VII. Recordkeeping Requirements

- A. The Permittee shall maintain records as listed below. These records should 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 construction and operation activities.

[40 C.F.R. §52.21, 40 C.F.R. § 55.8, 40 C.F.R. § 55.14,  
Appendix A of 40 C.F.R. Part 55, 9VAC5-50-50, 9VAC5-50-280]

1. Per Section IV(A)(2)-(3), Section IV(B)(3), and Section IV(C)(2), for all engines operating on OCS source(s) (including engines on vessels meeting 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);
  - iii) the name of the fuel supplier; Permittee shall keep records for each supplier (if multiple refueling operations with different suppliers are utilized);
  - iv) the sulfur content of the fuel; and
  - 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).
2. Records of the date and time (rounded to the nearest hour) that any equipment, activity, or vessel is considered an OCS source, and associated date and time (rounded to the nearest hour) that any equipment, activity, or vessel ceases to be an OCS source.
3. Records documenting the make, model, maximum rated horsepower, engine displacement (L/cylinder), and manufacturing date of: engine(s) located on the OSS and WTG(s), all engines on vessels that meet the definition of an OCS source, and all engines on vessels servicing or associated with the OCS source when those vessels are at the OCS source, or en route to or from the OCS source and are within the 25 NM square boundary around the centroid of the OCS source's centroid. The records should be maintained during construction and operation activities.
4. Per Section IV(A)(6), Section IV(A)(9), and Section IV(A)(11), records of the 12-month rolling total of NO<sub>x</sub>, VOC, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and GHG emissions, for the OCS source calculated and recorded within 7 days of the end of each calendar month.
5. Per Section IV(A)(7), Section IV(A)(10), and Section IV(A)(12), records of the NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> tons per day emissions, for the OCS source calculated and recorded every 7 days.

6. Per Section IV(A)(8), for all emission sources defined in Section IV(A)(6)-(7), the Permittee shall keep records of the assumptions behind the actual emission calculations each operating day. The Permittee shall keep the following daily records for each engine:
  - i) Engine rating;
  - ii) Engine usage per operating day;
  - iii) Daily engine load factors; the Permittee shall record how the daily load factor was calculated per Section IV (A)(8)(iv)-(vi);
  - iv) Daily fuel use rate; and
  - v) Emission factor; the Permittee shall record the source of the emission factor selected.
7. Per Section IV(B)(4)-(5), the Permittee shall maintain records of the marine engines on vessels while operating as OCS source(s) that documents BACT was implemented in the final construction and operation of the project. This includes documentation that contains sufficient information that the marine engines selected meet the most stringent emission standards in 40 C.F.R. Part 1042 at the time the vessel was contracted, unless 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 standards.
8. Per Section IV(B)(6), the Permittee shall keep records of when the Alternative WTG Installation Vessel is used in lieu of the Charybdis vessel and provide documentation of the Charybdis vessel's unavailability, as specified in Section IV(B)(6).
9. Per Section IV(A)(8)(i) and IV(B)(8)-(11), records of the EPA-issued COC for the Main Jack-Up Vessel (Charybdis). The Permittee should include verification that the designs proposed in the preconstruction permit application were implemented in the final construction and operation.
10. Per Section IV(A)(8)(i) and IV(C)(3)-(8), records of the EPA-issued COC or manufacturer's certifications which demonstrate the OCS Generator Engine(s) on the OSS(s) and/or WTG(s) are certified to meet Tier 4 emission standards in 40 C.F.R. § 1039.101.
11. Per Section IV(B)(1) and Section IV(C)(1), a copy of the GCOP Plan for the facility.
12. Per Section IV(C)(9)-(10), the Permittee shall monitor and record the hours each Permanent Non-emergency Diesel Engines is in operation, to ensure compliance with the 12-month rolling engine hour limits.

13. Per Section IV(D)(1), records of the GIS low-pressure alarm testing.
  14. Per Section IV(D)(2), the date and time that the low-pressure alarms located on the OSS GISs are activated, the corrective action(s) taken to remedy the problem, the date of each such corrective action, and the date when the problem was resolved.
  15. Per Section IV(D)(3), records that demonstrate the SF<sub>6</sub> leak rate does not exceed 0.5% per year from the HV GISs.
  16. Per Section V(B)-(E), records of manufacturer's emission-related specifications for each engine.
  17. Per Section VI(B), records that the EPA test Method 22 was completed, including the date and result of the test, and any additional visible emission tests conducted using EPA Method 9.
  18. Per Section VI(C), the Permittee shall maintain records of any NO<sub>x</sub> and PM emissions performance test reports required by this Permit for Category 3 marine engines on ocean-going vessels (used during C&C and O&M), which shall at minimum include the date and the results of the test.
  19. Records of the construction start date and operational phase start date.
  20. Any records not specified above as required by NSPS IIII and NESHAP ZZZZ.
- B. Except in instances of safety issues, engine failures, a storm at sea, or anchoring while not performing work that is regulated under Part 55, if a vessel attaches temporarily to the seabed, the vessel may be considered an OCS source because of that attachment. The record shall be made for each attachment for instances other than safety issues, engine failures, a storm at sea, or anchoring while not performing work that is regulated under Part 55. The records should include the following details: the date and time the vessel was attached to seabed or an OCS facility, the reason for temporarily attaching, a statement on any activity being conducted at the time of attachment, and any pertinent engine information.

[40 C.F.R. § 55.2, 40 C.F.R. § 55.8]

- C. The Permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken and name of person generating the record.

[40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55,  
40 C.F.R. § 60.7(b), 9VAC5-20-180(J)]

### **SECTION VIII. Reporting Requirements**

- A. The Permittee shall notify the EPA in writing at least 7 days prior to locating the first OCS source within the WDA.  
[40 C.F.R. § 52.21, 40 C.F.R. § 55.2, 40 C.F.R. § 55.8, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 9VAC5-50-280]
- B. The Permittee shall notify the EPA in writing no later than 7 days after locating the first OCS source within the WDA (i.e., the Construction Phase Start Date).  
[40 C.F.R. § 52.21, 40 C.F.R. § 55.2, 40 C.F.R. § 55.8, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 9VAC5-50-50, 9VAC5-50-280]
- C. The Permittee shall provide written notification to the EPA no later than 7 days after the Operation Phase Start Date (i.e., when the first WTG begins producing commercial power).  
[40 C.F.R. § 55.8]
- D. The Permittee shall provide written notification to the EPA within 7 days after the Construction Phase ends (i.e., when the last WTG begins producing commercial power).  
[40 C.F.R. § 55.8]
- E. The Permittee shall submit a quarterly report to the EPA, documenting each instance an engine was installed and/or operated on each WTG. The report shall include, for each engine, the make, model, maximum rated power output, engine displacement, and manufacturing date.  
[40 C.F.R. § 52.21, 40 C.F.R. § 55.2, 40 C.F.R. § 55.8, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 9VAC5-50-50, 9VAC5-50-280]
- F. The permittee shall provide a copy of the notice of the 500-meter safety exclusion zones approved by the U.S. Coast Guard.  
[40 C.F.R. § 55.8]
- G. 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. § 55.8]

- H. The Permittee shall furnish to the EPA, within 10 working days or such other reasonable time as specified or agreed to by the EPA, 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 this 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. Information claimed to be confidential must be accompanied by a claim of confidentiality according to the provisions of 40 C.F.R. Part 2, Subpart B. The Permittee may request confidentiality claim covering part or all of the information, in the manner described by 40 C.F.R. 2.203(b) Information covered by such a claim will be disclosed by the EPA only to the extent, and by means of the procedures, set forth in 40 C.F.R. Part 2, Subpart B; if no such claim accompanies the information when it is received by the EPA, it may be made available to the public by the EPA without further notice to the Permittee.  
[40 C.F.R. Part 2, Subpart B, 41 FR 36902, Sept. 1, 1976,  
as amended at 43 FR 40000, Sept. 8, 1978; 50 FR 51661, Dec. 18, 1985, 40 C.F.R. § 55.8]
- I. Per Section IV(B)(6), the Permittee shall notify the EPA in writing within 24 hours of contracting the alternate vessel in addition to any other supporting documentation.  
[40 C.F.R. § 55.8]
- J. The Permittee shall comply with all applicable reporting requirements of 40 C.F.R. 60, Subpart IIII, New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (CI ICEs).  
[40 C.F.R. Part 60, Subpart IIII (§ 60.4200–60.4219, Table 1–Table 8)]
- K. The Permittee shall comply with all applicable reporting requirements of 40 C.F.R. Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICEs).  
[40 C.F.R. Part 63, Subpart ZZZZ (§ 63.6580–63.6675,  
Table 1–Table 8, Appendix A to Subpart ZZZZ)]



**SECTION IX. General Conditions**

- A. The Permittee shall comply with all conditions contained in this Permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
- [40 C.F.R. § 55.6(a)(4), 40 C.F.R. § 55.14,  
Appendix A of 40 C.F.R. Part 55, 9VAC5-80-1500(H), 9VAC5-80-1985(H)]
- B. The authorization to construct an OCS source under this Permit shall become invalid if construction is not commenced within 18 months after the effective date of this Permit). If construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time, the 18-month period may be extended upon a showing satisfactory to the EPA or the delegated agency that an extension is justified. Sources obtaining extensions are subject to all new or interim requirements and a reassessment of the applicable control technology when the extension is granted. This requirement shall not supersede a more stringent requirement under 40 C.F.R. § 55.13 or 55.14.
- [40 C.F.R. § 52.21(e)(2), 40 C.F.R. § 55.6(b)(4), 40 C.F.R. § 55.14,  
Appendix A of 40 C.F.R. Part 55, 9VAC5-80-1985]
- C. OCS source(s) 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)]
- D. At all times, including periods of start-up, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.
- [40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55,  
40 C.F.R. § 60.11(d), 9VAC5-50-20(E)]

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- E. The Permittee shall notify the EPA of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour. Such notification shall be made no later than four daytime business hours after the malfunction is discovered. The Permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within 14 days of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the EPA.

[40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55,  
40 C.F.R. § 60.7(c), 9VAC5-20-180(C)]

- F. The Permittee shall, upon request of VADEQ or the EPA, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.

[40 C.F.R. § 52.21(m)(2), 40 C.F.R. § 55.14,  
Appendix A of 40 C.F.R. Part 55, 9VAC5-20-180(I)]

- 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. If the Permittee is ordered to cease operation of any piece of equipment due to enforcement action taken by the EPA or a delegated agency, the shutdown will be coordinated by the EPA with the BOEM's, 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)]

- I. The Permittee shall construct 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)]

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

Director, Enforcement and Compliance Assurance Division  
U.S. EPA Region 3  
Four Penn Center, 1600 JFK Blvd.  
Mail Code 3ED21  
Philadelphia, PA 191035  
Attn: Section Chief, Air RCRA and Toxins Compliance Branch

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

#### **SECTION X. Right of Entry**

- A. The Permittee shall allow all authorized representatives of the EPA, upon presentation of credentials:
1. to enter at any time upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this Permit;
  2. at reasonable times to access and to copy any records required to be kept under the terms and conditions of this OCS Permit;
  3. to inspect at reasonable times any facility, equipment, operation, or method regulated or required under this Permit; and
  4. to sample or test at reasonable times 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, 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 9VAC5-170-130]

#### **SECTION XI. 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 30 days after such change. Notification shall be sent by letter with a copy forwarded within 5 days to the EPA.

[40 C.F.R. § 55.6(a)(4)(iv), 40 C.F.R. § 55.14, Appendix A of 40 C.F.R. Part 55, 9VAC5-80-1975]

#### **SECTION XII. Severability**

- A. For the purpose of establishing whether the Permittee has violated or is in violation of any provision of this Permit, the methods described in this Permit shall be used, as applicable. However, nothing in this Permit 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 procedures or methods had been performed.

[40 C.F.R. § 52.12(c), 40 C.F.R. § 60.11(g)]

**SECTION XIII. Permit Fees**

- A. The Permittee shall submit the permit application fee of \$84,383 for a major NSR permit application for the OCS permit.

[40 C.F.R. § 55.10]

- B. The Permittee shall submit the application fees to the EPA within 60 days from receipt of written notice by the EPA of the fee amount due.

- C. The Permittee shall submit all fee-related payments and supporting documentation to the following address:

U.S. EPA  
Fees and Collections Branch  
1300 Pennsylvania Ave NW  
Mail Code 2733R  
Washington, DC 20004

- D. When submitting the payment, the Permittee shall include a cover letter containing the following supporting documentation with the payment:

Permittee's Name  
Permittee Address (including City, State, Zip-Code)  
Permittee Contact Name and Phone Number  
EPA Permit Number: OCS-R3-01  
EPA Contact: [Contact Name], Manager, Permits Branch, Air and Radiation Division  
Reason for payment: "Miscellaneous Receipts Payment for OCS Air Permit Fee under 40 C.F.R. Part 55"  
If applicable, all emissions information used to calculate the fee.

- E. Permittee shall send a photocopy of each fee payment check (or other confirmation of actual fee paid) and a copy of the supporting documentation for the application fee to:

Manager, Permits Branch  
Air and Radiation Division  
U.S. EPA Region 3  
Four Penn Center, 1600 JFK  
Blvd.  
Philadelphia, PA 19103