U.S. Environmental Protection Agency
Region 2
New York City, New York
CAA Permitting in New Jersey, New York, Puerto Rico,
and the U.S. Virgin Islands

OUTER CONTINENTAL SHELF AIR PERMIT TO CONSTRUCT AND OPERATE

Permit Number: OCS-EPA-R2NJ01

Issue Date: Draft

Effective Date: Draft

In accordance with the provisions of section 328 of the Clean Air Act, 42 U.S.C. § 7627, and the implementing Outer Continental Shelf (OCS) air regulations at title 40 of the Code of Federal Regulations (C.F.R.), part 55,

Ocean Wind, LLC
One International Place
100 Oliver Street, Suite 2610
Boston, MA 02110

is hereby authorized to construct and operate air emissions units and to conduct other air pollutant emitting activities in accordance with the permit conditions listed in this permit at an OCS source comprised of two identical WindSentinel™ FLIDAR data collection meteorological buoys. The OCS source is authorized to construct at the following OCS locations within Official Protraction Diagram Wilmington NJ18-02, OCS Blocks 7081 and 6986:

Meteorological Buoy FLIDAR 1: located in the OCS waters of the Atlantic Ocean, 39.070791° north latitude, and 74.44385° west longitude, at approximately 12.3 nautical miles southeast of Strathmere, New Jersey.

Meteorological Buoy FLIDAR 2: located in the OCS waters of the Atlantic Ocean, 39.134194° north latitude, and 74.167778° west longitude, at approximately 17.8 nautical miles southeast of Atlantic City, New Jersey.

John Filippelli, Director
Clean Air and Sustainability Division

8/23/18
Date

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I. PROJECT DESCRIPTION

Ocean Wind, LLC (Ocean Wind or the Permittee) is proposing a project to construct (install) and operate two identical floating light detection and ranging (FLIDAR) data collection meteorological (met) buoys[1] on the OCS within 25 nautical miles offshore New Jersey (Ocean Wind Met Buoys Project, Met Buoys Project, or Project). Ocean Wind anticipates operating the met buoys for up to two years to collect data to help Ocean Wind determine if the area is suitable for wind energy production. Each met buoy will consist of instrumentation and supporting systems atop a floating moored buoy platform. The instrumentation and lighting on each buoy will be powered by batteries, primarily charged by a hybrid wind-solar system. Each buoy will also be equipped with a 10-kilowatt (kW) diesel-fired generator engine as a secondary or backup battery charging source. The proposed Met Buoys Project includes installation, operation and maintenance, and decommissioning phases (or activities).

Installation – The installation of each of the two met buoys would require the use of a workboat and a support vessel, which will each make a separate round trip from Avalon, NJ to each met buoy location. The workboat vessel will be equipped with construction equipment and will be used to (1) transport each buoy from an onshore location (Avalon, NJ) to its OCS location, either carried on the workboat's deck or towed behind; and (2) install each buoy and its mooring system at its OCS location. The support vessel will accompany and assist the workboat vessel during the installation of the met buoys.

Operation and Maintenance – Ocean Wind anticipates that operation of each met buoy will last up to 2 years. Maintenance of each of the two met buoys will include a one-time annual inspection and quarterly maintenance activities.

One-time Annual Inspection - A one-time annual inspection of each of the two met buoys will occur only once, one year after the installation of the met buoys. During the one-time annual inspection of each met buoy, a workboat and a support vessel will each make separate round trips from Avalon, NJ to each met buoy location. The workboat vessel will be equipped with construction equipment and will be used to (1) retrieve the buoys and their mooring systems from their OCS locations and transport them to the onshore location (Avalon, NJ) for maintenance and repair services; (2) transport the serviced met buoys back to their OCS locations; and (3) install the buoys at their original OCS locations. The support vessel's role during the one-time annual inspection is to accompany and assist the workboat vessel.

Quarterly Maintenance Activities - In addition to the one-time annual inspection, the facility will conduct, every 3 months, maintenance activities for each of the two met buoys during their up-to-2-year operational life. The quarterly maintenance activities require the use of one support vessel which will make only a single round trip to the two met buoys' locations.

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[1] The met buoys each utilize a light detection and ranging (LIDAR) system; LIDAR is a surface-based remote sensing technology that operates via the transmission and detection of light. Ocean Wind has selected the AXIS Technologies Inc.(AXIS) WindSentinel™ FLIDAR as the meteorological and metocean data collection technologies for its met buoys.

Decommissioning – After up to two years of operation, the met buoys will be decommissioned (removed) from their OCS locations. The decommissioning phase of each of the two met buoys will involve the use of the same vessels and same activities as the installation phase, but with the activities performed in reverse.

As presented in the application, the workboat and support vessels would not constitute OCS sources during the installation, one-time annual inspection, quarterly maintenance, and decommissioning phases of the Met Buoys Project. There is a possibility that the support vessel could be an OCS source if it attaches to the met buoys during quarterly maintenance activities. If this occurs, this permit prohibits Ocean Wind from operating any support vessel engines while the support vessel is attached to the met buoys. Therefore, the support vessel would have no emissions, and no other 40 C.F.R. part 55 requirements would apply, during such instances.

Air pollutant emissions generated from the Met Buoys Project include nitrogen dioxide (NO_x), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter (PM), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), volatile organic compounds (VOC), greenhouse gases (GHG), and hazardous air pollutants (HAPs), including lead (Pb). These air pollutants are associated with the combustion of diesel fuel in (1) the workboat vessel's main engines; (2) the workboat vessel's auxiliary engines and the deck engine which powers the construction equipment onboard the workboat vessel; (3) the support vessel's main engines; and (4) the engines on the met buoys. The estimated potential to emit (PTE) of the Met Buoys Project includes (1) emissions from the OCS source (emissions from the two diesel-fired engines onboard the met buoys) and 2) emissions from the workboat and support vessels' engines during installation, annual inspection, quarterly maintenance and decommissioning activities at the met buoys locations and while enroute to and from the OCS source when within 25 miles of the met buoys. Based on its PTE, the Met Buoys Project is a minor source of pollution, and thus is not subject to Prevention of Significant Deterioration or Nonattainment New Source Review requirements.

II. EMISSION SOURCES LIST

Table 1 – Ocean Wind Met Buoys Project - Two Met Buoys Engines

Emission Source Id. No.	Emission Source Description/Function	Model Year	Make and Model	Maximum Rated Power [BHP]/[kW]/[MMBTU/hr]
MBF1-CIE	Stationary Compression Ignition Internal Combustion Engine on Met Buoy Flidar F1/To provide backup power	2011	Yanmar-2TNV70 [0.29 L/cylinder]	13.4 HP/10 kW/0.13 MMBTU/hr
MBF2-CIE	Stationary Compression Ignition Internal Combustion Engine on Met Buoy Flidar F2/To provide backup power	2011	Yanmar-2TNV70 [0.29 L/cylinder]	13.4 HP/10 kW/0.13 MMBTU/hr

Table 2 – Ocean Wind Met Buoys Project - Workboat and Support Vessels Engines

The following are the propulsion, auxiliary and construction equipment engines associated with the workboat and support vessels that Ocean Wind anticipates using for the Met Buoys Project (for installation, quarterly maintenance, annual inspection and decommissioning). The information on the model year and maximum rated power of the workboat and support vessels engines included in Table 2 is for description and identification purposes and are not operating limits.

Engine Make/Model	Model Year	Maximum Rated Power [HP]/[kW]	Function/ Purpose
Workboat Vessel			
Volvo D12D-G MH	2008	450 HP/336 kW	Workboat vessel – marine propulsion engine
Volvo D12D-G MH	2008	450 HP/336 kW	Workboat vessel – marine propulsion engine
John Deere 4045TF	2015	87 HP/65 kW	Workboat vessel – auxiliary generator engine
Caterpillar model unknown	2010	87 HP/65 kW	Workboat vessel – auxiliary generator engine (backup)
Detroit 4-53 Series 53	Pre-2007	120 HP/90 kW [0.84 MBTU/hr]	Deck engine, diesel-fueled, on board workboat vessel to supply hydraulic power for the construction equipment located onboard workboat vessel (tow winch, crane, and A-frame)
Support Vessel			
Volvo D9	2013	425 HP/318 kW	Support vessel – marine propulsion engine
Volvo D9	2013	425 HP/318 kW	Support vessel – marine propulsion engine

III. GENERAL CONDITIONS

A. Permit Expiration

1. An approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, 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 Administrator 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. § 55.6(b)(4)]

2. "Commenced" means, with respect to the definition of new source in section 111(a)(2) of the Clean Air Act (CAA or Act), that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator (Ocean Wind, LLC or the Permittee) has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification; and "Construction" means fabrication, erection, or installation of an affected facility. [40 C.F.R. § 60.2]

3. Any preconstruction permit issued to a new OCS source or modification shall remain in effect until it expires under paragraph 40 C.F.R. § 55.6(b)(4), is rescinded under the applicable requirements incorporated in 40 C.F.R. §§ 55.13 and 55.14, or until the date the EPA terminates this permit at the Permittee's request as specified by this permit. [40 C.F.R. § 55.6(b)(5)]

B. Compliance

The Permittee shall comply with all requirements of 40 C.F.R. part 55 and this permit. 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 OCS source and Permittee. [40 C.F.R. §§ 55.9(a) and (b)]

C. Safe Shutdown

As provided in 40 C.F.R. § 55.9(c), if this OCS source is ordered to cease operation of any piece of equipment due to enforcement action taken by the EPA, the shutdown will be coordinated by the EPA with the Department of the Interior's Bureau of Ocean Energy Management and the United States Coast Guard, to assure that the shutdown will proceed in a safe manner. No shutdown action will occur until after 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)]

D. Notification to Owners, Operators, and Contractors

The Permittee shall notify all other owners or operators, contractors, and any subsequent owners or operators associated with the emissions from this OCS source of the terms and conditions of this permit. A copy of the notification letter shall be forwarded to the EPA Region 2 Office. [40 C.F.R. § 55.6(a)(4)(iv)]

E. Construction and Operation

As approved and conditioned by this permit, all construction, operation, maintenance (including quarterly maintenance activities and annual inspection) and decommissioning activities of this OCS source, and all equipment used (including but not limited to workboat and support vessels and their associated engines) shall be in accordance with the data, specifications, drawings, exhibits, and assumptions presented in the application and supporting materials submitted by the Permittee. This permit is valid only for the specific processes and operations applied for and indicated in the permit and application materials. Any unauthorized deviation from the application materials, or from any term or condition of this permit may constitute grounds for revocation or enforcement action by EPA. [40 C.F.R. § 55.6(a)(4)(i)]

F. Compliance and Other Requirements

This permit does not relieve the Permittee of the responsibility to comply fully with applicable provisions of any other requirements under federal law. [40 C.F.R. § 55.6(a)(4)(iii)]

G. Right to Entry

1. Pursuant to section 114 of the CAA, 42 U.S.C. § 7414, EPA authorized personnel have the right to enter this facility and inspect for all purposes authorized under section 114 of the Act. The Permittee acknowledges that EPA authorized personnel, upon the presentation of credentials, shall be permitted:

    a. 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 OCS Permit;

    b. at reasonable times to access and to copy any records required to be kept under the terms and conditions of this OCS Permit;

    c. to inspect any equipment, operation, or method required in this OCS Permit; and

    d. to sample emissions from the source relevant to this permit.
    [40 C.F.R. §§ 55.8(a), (b) and (d)]

H. Certification Requirement

Any document required to be submitted under this permit, or any other document requested by the EPA which is not specified in this permit shall be certified by a responsible official as to truth, accuracy, and completeness. Such certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [40 C.F.R. §§ 55.8(a) and (b)]

I. Recordkeeping Requirements

1. In accepting this permit, the Permittee understands and agrees that all information relating to this permitted source may be used by the EPA as evidence in any enforcement case involving the permitted source arising under federal statutes, EPA rules, or rules enforceable by EPA.

    a. This permit or a copy thereof shall be kept at the office of Ocean Wind, LLC, which is located at the address specified on page 1 of this permit.

    b. The Permittee shall furnish all records required by this permit when requested by EPA.

    c. During enforcement actions, the retention period for all records required by this permit will be extended automatically until the Permittee receives written notice from EPA that the Permittee no longer needs to retain these records.

2. The Permittee shall hold at the office of Ocean Wind, LLC, which is located at the address specified on page 1 of this permit, all records required by the permit including, but not limited to, monitoring data and support information required by the permit, and records of all data used to complete the application for this permit. These materials shall be retained for at least five years from the date of the sample, measurement, or report unless otherwise specified. Records of all data used to complete the permit application must be kept for five years from the date of the application, unless otherwise specified. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by the permit. [40 C.F.R. §§ 55.8(a) and (b)]

J. Reporting

1. 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 such facts or corrected information to the EPA. [40 C.F.R. §§ 55.8(a) and (b)]

2. 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 kept pursuant to the terms of the 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. [40 C.F.R. §§ 55.8(a) and (b)]

3. All notifications, reporting or other communications related to this permit shall be submitted to:

   Chief – Stationary Source Compliance Section
   Air Compliance Branch
   USEPA Region 2
   290 Broadway
   New York, NY 10007-1866

   Chief – Permitting Section
   Air Programs Branch
   USEPA Region 2
   290 Broadway
   New York, NY 10007-1866

IV. OPERATING REQUIREMENTS/WORK PRACTICES

A. Met Buoys Engines

1. The Permittee shall install and operate onboard each of the two met buoys a Yanmar 2TNV70 diesel-fueled generator engine, no older than model year 2011, naturally-aspirated, 4-stroke, 2-cylinder (cyl), 0.29 Liters/cyl (L/cyl), maximum rated power of 10 kilowatts (kW) 13.44 horsepower (HP), 0.13 million British thermal units per hour (MMBTU/hr). For this permit, the two met buoy engines are identified as MBF1-CIE and MBF2-CIE. [40 C.F.R. § 55.6(a)(4)(i)]

2. The maximum operating hours for each of the met buoy engines (MBF1-CIE and MBF2-CIE) shall be limited to 500 hours determined on a 12-month rolling total basis. [40 C.F.R. § 55.6(a)(4)(i)]

B. Workboat and Support Vessels Engines

1. For the installation, one-time annual inspection, and decommissioning phases (or activities) of the two met buoys, the Permittee shall use only workboat and support vessels for which the vessels' owners provide written assurance that the

vessels are capable of being maintained in a fixed location by using only the vessels' engines and without requiring any attachment to the seabed, or to the met buoys when they are an OCS facility.

2. During the quarterly maintenance activities of the two met buoys, the Permittee shall use only support vessels for which the vessels' owners provide written assurance that the vessels are capable of being maintained in a fixed location by using only the vessels' engines and without requiring any attachment to the seabed.

3. During the quarterly maintenance activities of the two met buoys, the Permittee shall use only support vessels for which the vessels' owners provide written assurance that, while attached to the met buoys, all of the vessels' power needs can be fully served using onboard battery power.

4. The Permittee shall not operate any support vessel engines while the support vessel is attached to either met buoy.

5. The Permittee shall ensure that at no time while performing the installation, one-time annual inspection, decommission, and quarterly maintenance activities will the workboat and/or support vessels attach to the seabed.

6. The Permittee shall ensure that there will be no device (e.g., item of construction equipment) located onboard the workboat or support vessels that will attach itself to the seabed during the installation, one-time annual inspection, decommission and quarterly maintenance activities.

7. The diesel fuel usage for the propulsion and auxiliary engines of the workboat vessel and for the propulsion engines of the support vessel shall be limited to the following gallons per phase/event. The fuel usage limits shall include the fuel used by the workboat and support vessels' engines while the vessels are at the OCS location and enroute to or from the met buoys OCS location when within 25 miles of the OCS location.

   a. During the Installation Phase of the two met buoys:

      i. Workboat vessel's propulsion and auxiliary engines, identified in Table 2 of this permit: 674 gallons
      ii. Support vessel's propulsion engines, identified in Table 2 of this permit: 609 gallons

   b. During the One-Time Annual Inspection of the two met buoys:

      i. Workboat vessel's propulsion and auxiliary engines, identified in Table 2 of this permit: 1,348 gallons

ii. Support vessel's propulsion engines, identified in Table 2 of this permit: 1,215 gallons

c. During the Quarterly Maintenance of the two met buoys:

i. Support vessel's propulsion engines, identified in Table 2 of this permit: 868 gallons/year

d. During the Decommission Phase of the two met buoys:

i. Workboat vessel's propulsion and auxiliary engines, identified in Table 2 of this permit: 674 gallons
ii. Support vessel's propulsion engines, identified in Table 2 of this permit: 609 gallons

8. All engines associated with the Met Buoys Project, which includes the engines identified in Tables 1 and 2 of this permit, shall be maintained in proper operating condition.
[40 C.F.R. § 55.6(a)(4)(i)]

V. FUEL CONTENT REQUIEREMENTS

A. Met Buoys Engines

1. The Permittee shall ensure that the diesel fuel used in the met buoys engines meets the following per-gallon standards:

a. Sulfur content of 15 parts per million (ppm) by weight maximum; and

b. Cetane index or aromatic content as follows:

i. A minimum cetane index of 40; or
ii. A maximum aromatic content of 35 volume percent.
[40 C.F.R. § 60.4207(b) and 40 C.F.R. § 80.510(b)]

2. The Permittee shall use only diesel fuel with a sulfur content less than or equal to 15 ppm by weight for the met buoys engines. [N.J.A.C. 7:27-9.2(b) Table 1B]

B. Workboat and Support Vessels' Propulsion and Auxiliary Engines, and Workboat Vessel's Deck Engine (Detroit 4-53 Series 53)

1. The Permittee shall use only diesel fuel with a sulfur content less than or equal to 15 ppm by weight for the workboat and support vessels' propulsion and auxiliary engines, and the deck engine (Detroit 4-53 Series 53) onboard the workboat vessel. [40 C.F.R. § 55.6(a)(4)(i)]

VI. EMISSION LIMITS

A. Met Buoys Engines

1. The Permittee shall ensure that each of the two met buoys engines (MBF1-CIE, and MBF2-CIE) is certified by the manufacturer to comply with the following emission standards for nitrogen oxides (NO_x) + Non-Methane Hydrocarbons (NMHC), carbon monoxide (CO), and particulates (PM) set forth at 40 C.F.R. § 1039.102(b) for new non-road stationary compression ignition engines, model years 2008-2014, with a maximum engine power of greater than 8 kW and less than 19 kW:

   a. NO_x + NMHC = 7.5 grams/kilowatt-hour (g/kW-hr);

   b. CO = 6 g/kW-hr;

   c. PM = 0.40 g/kW-hr.
   [40 C.F.R. §§ 60.4204(b), 60.4201(a), and 1039.102(b)]

2. The Permittee shall limit the sulfur dioxide emissions (SO_2) from each of the two met buoys engines (MBF1-CIE, and MBF2-CIE) to less than or equal to 0.00160 pounds of SO_2 per MMBTU (lb SO_2/MMBTU). Compliance with this emission limit shall be demonstrated by using fuel oil with a maximum sulfur content of 15 ppm by weight. [N.J.A.C. 7:27-9.2(b), Table 2B]

B. Met Buoys Project

1. The Permittee shall not emit into the outdoor atmosphere, from the Met Buoys Project, substances in quantities that result in air pollution, which shall have the meaning of the air pollution definition at N.J.A.C. 7:27-5.1: Air pollution means the presence in the outdoor atmosphere of one or more air contaminants in such quantities and duration as are, or tend to be, injurious to human health or welfare, animal or plant life or property, or would unreasonably interfere with the enjoyment of life or property throughout the State and in such territories of the State as shall be affected thereby and excludes all aspects of employer-employee relationship as to health and safety hazards. [N.J.A.C. 7:27- 5.2(a)]

VII. SMOKE AND OPACITY LIMITATION, AND CRANKCASE EMISSIONS

A. Met Buoys Engines

1. The Permittee shall ensure that the emissions from each of the two met buoys engines (MBF1-CIE and MBF2-CIE) do not exceed the following smoke and opacity standards:

a. Smoke that has a shade or appearance which (1) is darker than No.1 on the Ringelmann Scale; and (2) is greater than 20% opacity, exclusive of visible condensed water vapor, except for no more than 10 consecutive seconds. [N.J.A.C. 7:27-3.5]

2. The Permittee shall ensure that each of the met buoys engines (MBF1-CIE and MBF2-CIE) has been certified by the manufacturer to meet the following smoke standards:

   a. 20 percent during the acceleration mode;

   b. 15 percent during the lugging mode;

   c. 50 percent during the peaks in either the acceleration or lugging modes. [40 C.F.R. §§ 60.4204(b), 60.4201(a), and 1039.105(b)]

3. The Permittee shall ensure compliance with the crankcase emissions provisions at 40 C.F.R. § 1039.115(a) for each of the two met buoys engines (MBF1-CIE and MBF2-CIE). The crankcase emissions may not be discharged directly into the atmosphere from any engine throughout its useful life, unless the crankcase emissions are added to the exhaust emissions (either physically or mathematically) during all emission testing. Crankcase emissions shall have the meaning of the crankcase emissions definition at 40 C.F.R. § 1039.801: Crankcase emissions means any airborne substances emitted to the atmosphere from any part of the engine crankcase's ventilation or lubrication system. The crankcase is the housing for the crankshaft and other related parts. [40 C.F.R. §§ 60.4204(b), 60.4201(a), and 1039.115(a)]

VIII. COMPLIANCE METHODOLOGY

A. Met Buoys Engines

1. For each of the two met buoys engines (MBF1-CIE and MBF2-CIE), the Permittee shall:

   a. Purchase engines certified by the manufacturer to meet or surpass the emission standards in 40 C.F.R. § 60.4204(b) which are specified in this permit; [40 C.F.R. § 60.4211(c)]

   b. Ensure that the engine is installed and configured according to the manufacturer's emission-related specifications; [40 C.F.R. § 60.4211(c)]

   c. Operate and maintain the engines and control devices according to the manufacturer's emission-related written instructions; [40 C.F.R. § 60.4211(a)(1)]

d. Only change those settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)(2)]

2. The Permittee must operate and maintain the met buoys engines (MBF1-CIE and MBF2-CIE) to achieve the emissions standards at 40 C.F.R. § 60.4204(b) which are specified in this permit over the entire life of the engines. [40 C.F.R. § 60.4206]

3. The Permittee shall comply with the requirements specified at the following parts of New Source Performance Standards, Subpart A (General Provisions): 40 C.F.R. §§ 60.1 through 60.6, 60.9, 60.10, 60.12, 60.14 through 60.17, and 60.19, which are specifically listed in Table 8 of 40 C.F.R. part 60, subpart IIII (Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE)). [40 C.F.R. § 60.4218]

4. The Permittee shall comply with the requirements of 40 C.F.R. part 63, subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines) by meeting the requirements of 40 C.F.R. part 60, subpart IIII (Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE)) that are specified in this permit. [40 C.F.R. § 63.6590(c)(1)]

5. The Permittee shall demonstrate compliance with the hours of operation limit for each of the met buoys engines either by (1) installing a non-resettable operating hour meter; or (2) using equivalent instrumentation that records operating hours and cannot be reset, to accurately indicate the elapsed operating time of each engine. [40 C.F.R. § 55.6(a)(4)(i)]

B. Workboat and support vessels engines

1. The Permittee shall demonstrate compliance with the limits on gallons of fuel established in this permit by maintaining contemporaneous records of the following:

   a. Gallons of fuel used by the workboat vessels' propulsion and auxiliary engines, which are identified in Table 2 of this permit. Gallons of fuel used shall be recorded separately for each of the following phases: the installation, one-time annual inspection and decommission phases of the two met buoys; and

   b. Gallons of fuel used by the support vessels' propulsion engines, which are identified in Table 2 of this permit. Gallons of fuel used shall be recorded separately for each of the following phases: the installation, one-time annual inspection, quarterly maintenance and decommission phases of the two met buoys. [40 C.F.R. § 55.6(a)(4)(i)]

2. The Permittee shall maintain a contemporaneous record of the actual hours of operation for each engine identified in Table 2 of this permit, separately, during each of the following phases: the installation, one-time annual inspection, quarterly maintenance and decommission phase. The actual hours shall include the vessels' propulsion and auxiliary engines operating hours while the vessels are enroute to or from the met buoys OCS location, within 25 miles of the buoys' location. [40 C.F.R. § 55.6(a)(4)(i)]

C. Met Buoys Project

1. The Permittee shall demonstrate compliance with the 15 ppm by weight sulfur content limit of the fuel combusted in all Met Buoys Project engines by obtaining fuel supplier certifications for each fuel delivery. Fuel supplier certification shall include the following:

   a. The name of the fuel supplier;

   b. The sulfur content of the fuel; and

   c. The method used to determine the sulfur content of the fuel. [40 C.F.R. § 55.6(a)(4)(i)]

IX. RECORDKEEPING REQUIREMENTS

1. The Permittee shall record and maintain a log of all records necessary for determining compliance with this permit at the location and for the duration specified in this permit, which shall include the following:

   a. The date of beginning and completion of each of the following activities for each met buoy: the installation, one-time annual inspection, each of the quarterly maintenance events, and decommission activities;

   b. The date that each met buoy engine is operated the first time;

   c. For each workboat and support vessel used for the Met Buoys Project, records of the following: owner (individual or company), vessel name, and written assurance from the vessel owner or operator that the vessel, during the installation, one-time annual inspection, and decommission activities, could be maintained in a fixed position using only the vessel engines and without any attachment to the seabed, or to the met buoys when they are an OCS facility;

   d. For each support vessel used for quarterly maintenance for the Met Buoys Project, records of the following: owner (individual or company), vessel name, and written assurance from the vessel owner or operator that the vessel, during quarterly maintenance, could be maintained in a fixed position using only the vessel engines and without any attachment to the seabed.

e. For each support vessel used for the Met Buoys Project, records of written assurance from the vessel owner that the support vessel, while attached to the met buoys (during the quarterly maintenance activities), is capable of supplying all of the vessel's power needs using battery power;

f. The Permittee shall maintain records describing the function of each item of construction equipment located onboard the workboat and support vessels, and specifying whether use of the item of construction equipment would require attachment to the seabed.

g. For each vessel propulsion and auxiliary engine that would be used during the Met Buoys Project, the engine's description, including the engine's make, model year, horsepower rating, and engine category and tier;

h. For each construction equipment engine used for the Met Buoys Project, the engine's description, including the engine's make, model year, and horsepower rating;

i. Hours of operation of each of the two met buoys engines (MBF1-CIE and MBF2-CIE) for each year of operation;

j. Hours of operation for each of the engines identified in Table 2 of this permit, by phase, as specified in this permit;

k. Gallons of fuel consumed by the workboat and support vessels propulsion and auxiliary engines identified in Table 2 of this permit, by phase, as specified in this permit;

l. Fuel supplier certifications required by this permit to demonstrate compliance with the sulfur content in fuel for all engines and all deliveries;

m. Manufacturer's specifications for each of the met buoys engines;

n. Descriptions and dates of any maintenance activities conducted on the met buoys engines;

o. Dates and places of the re-fueling of the met buoys fuel storage tanks; and

p. Actual annual emissions in tons per year, along with all supporting calculations, for the 1st and 2nd year of the Met Buoys Project's operation. These emissions should be the sum of the following: emissions from the two met buoys engines (MBF1-CIE and MBF2-CIE); emissions from the installation, quarterly maintenance activities, one-time annual inspection and decommission activities of the two met buoys; and emissions from workboat and support vessels while enroute to or from the met buoys locations when within 25 miles of the met buoys

OCS locations. The Permittee shall calculate these emissions using the same methodology (e.g. emission factors, hours of operation, engines size, formulas, assumptions) which was used in the application.
[40 C.F.R. § 55.6(a)(4)(i)]

X. REPORTING REQUIREMENTS

1. All reporting/notification required by this permit shall be submitted to EPA as specified by this permit.

2. The Permittee shall notify EPA within 30 calendar days after completion of the installation phase.

3. The Permittee shall submit to EPA no later than 30 calendar days after completion of the decommission phase:

   a. A request to cancel this OCS air permit; and

   b. A report that shall include all records required at Condition IX.1.a. through p. of this permit.

   [40 C.F.R. §§ 55.8(a) and (b)]

XI. OTHER REQUIREMENTS

If, at any time during the two-year operation of the Met Buoys Project, either the United States Fish and Wildlife Service or the National Marine Fisheries Service (or a successor agency) requests that the Endangered Species Act (ESA) or Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) consultation be re-initiated, withdraws an Incidental Take Statement, or determines that the requirements of the ESA or MSFCMA are not being satisfied, the owner/operator shall notify EPA within five (5) calendar days of its receipt of such request, withdrawal, or determination. [40 C.F.R. §§ 55.6(a)(4)(i) and 55.8(a) and (b)]