UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

FACT SHEET

Outer Continental Shelf Air Permit Approval:
Meteorological Buoy
Deepwater Wind New England, LLC

Offshore Renewable Wind Energy Project
Rhode Island-Massachusetts Wind Energy Area

EPA Draft Permit Number
OCS-R1-02

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I. General Information

Name of source:	Deepwater Wind New England
Location:	OCS Block 6965, Aliquot M of the Official Protraction Diagram Providence NK19-07, at or about 41° 05' 16" N and 71° 13' 22" W, southwest of Martha's Vineyard
Applicant's name and address:	Deepwater Wind New England, LLC 56 Exchange Terrace, Suite 300 Providence, RI 02903
Draft OCS permit number:	OCS-R1-02
EPA contact:	Donald Dahl Air Permits, Toxics, and Indoor Programs Unit EPA Region 1 5 Post Office Square Suite 100 (OEP05-2) Boston, MA 02109-3912 Telephone: (617) 918-1657 Email: Dahl.Donald@epa.gov

On July 12, 2018, Deepwater Wind New England, LLC (DWW or the applicant) submitted to the EPA Region 1 (the EPA) an application requesting a Clean Air Act (CAA or the Act) permit under Section 328 of the CAA for the construction, operation, and decommissioning of a meteorological buoy (Met Buoy) on the Outer Continental Shelf (OCS). The EPA is proposing a draft permit for this project.

After reviewing the application and additional information, the EPA prepared this Fact Sheet and draft OCS permit for the proposed Met Buoy project as required by 40 C.F.R. part 124 - Procedures for Decision Making.

The EPA's permit decisions are based on the information and analysis provided by the applicant and the EPA's own technical expertise. This Fact Sheet documents the information and analysis the EPA used to support the OCS permit decision. It includes a description of the proposed facility, the applicable regulations, and an analysis demonstrating how the applicant will comply with the requirements.

Based on all submittals, the EPA has concluded DWW's application is complete and provides the necessary information showing the project meets federal regulations. *See* 40 C.F.R. part 55. The EPA is making DWW's submitted information part of the official record for this Fact Sheet and OCS permit. The initial application and supplemental information for this permit are available on-line at the EPA Region 1 Web Site https://www.epa.gov/caa-permitting/caa-permitting-epas-new-england-region.

II. Project Location

The proposed Met Buoy project will be located within DWW's wind farm lease area, as defined under the "OCS renewable energy assignment of interest in lease" issued by the Bureau of Ocean Energy Management (BOEM) to the applicant, identified as lease # OCS-A 0486.[1] The Met Buoy will be located at or about 41° 05' 16" N and 71° 13' 22" W, southwest of Martha's Vineyard.

III. OCS Regulatory Requirements

A. OCS Statutory Requirements

Section 328(a) of the CAA requires that the EPA establish air pollution control requirements for OCS sources located within 25 miles of states'[2] seaward boundaries that are the same as onshore requirements. To comply with this statutory mandate, on September 4, 1992, the EPA promulgated 40 C.F.R. part 55, which established requirements to control air pollution from OCS sources in order to attain and maintain federal and state ambient air quality standards and to comply with the provisions of part C of title I of the Act (the Prevention of Significant Deterioration of Air Quality requirements).[3]

The Energy Policy Act of 2005 (s*ee* Title III (Oil and Gas), Subtitle G – Miscellaneous, Section 388) amended section 8 of the Outer Continental Shelf Lands Act (OCSLA) to allow the EPA and the Department of the Interior to authorize activities on the OCS that "produce or support production, transportation, or transmission of energy from sources other than oil and gas." BOEM's issuance of a site assessment plan for the installation, operation, and decommissioning of the Met Buoy demonstrates that the Met Buoy project is such an activity.[4] As discussed in further detail in Section VI, the Met Buoy project is an "OCS Source" subject to section 328 of the CAA and its implementing regulations at 40 C.F.R. part 55.

B. Procedural Requirements for Permitting OCS Sources

Regulations developed pursuant to OCS statutory requirements under section 328 of the CAA are codified at 40 C.F.R. part 55. The OCS regulations create procedures that require an applicant seeking to construct and operate an OCS source to identify the federal regulations, and the state and local regulations from the corresponding onshore area (COA), that may apply to the source and to seek to have those regulations apply, as a matter of federal law, to the OCS source. Once receiving a complete permit application, the EPA then follows the applicable

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[1] A copy of the Deepwater Wind OCS lease # OCS-A 0486 may be found at https://www.boem.gov/Renewable-Energy-Program/State-Activities/RI/Executed-Lease-OCS-A-0486.aspx (last visited on September 25, 2018). A copy of the document is also included in the administrative record for this action.

[2] The term "state" when used to reference one of the 50 states within the United States includes states that are actually commonwealths.

[3] The reader may refer to the Notice of Proposed Rulemaking, December 5, 1991 (56 Fed. Reg. 63,774), and the preamble to the final rule promulgated September 4, 1992 (57 Fed. Reg. 40,792) for further background and information on the OCS regulations.

[4] A copy of the site assessment plan may be found at https://www.boem.gov/Site-Assessment-Plan-for-OCS-A-0486 (last visited on September 25, 2018). A copy of the document is also included in the administrative record for this action.

procedural requirements for federal permitting outlined in 40 C.F.R. part 71 or 40 C.F.R. part 124, and the EPA issues an OCS permit that meets all federal requirements.[5] The EPA is following the procedural requirements of 40 C.F.R. part 124 in issuing this permit approval.

The OCS regulations first require the applicant to submit a notice of intent (NOI) to the nearest EPA regional office. *See* 40 C.F.R. § 55.4. The NOI provides emissions information regarding the OCS source, including information necessary to determine the applicability of onshore requirements and the source's impact in onshore areas. Based on the information in the NOI, if the source will be within 25 miles of the seaward boundary of one or more states, the EPA identifies the COA that corresponds to the OCS source. *See* 40 C.F.R. § 55.5. DWW submitted to the EPA an NOI for the Met Buoy project on February 16, 2018. On October 22, 2018, DWW submitted an updated NOI to the EPA for the Met Buoy project.

On December 18, 2018, the Commonwealth of Massachusetts submitted a request to EPA Region 1 to be designated the COA in accordance with the requirements of 40 C.F.R. § 55.5. The EPA received no adverse comments and one comment from the Rhode Island Department of Environmental Management (RI DEM) in support of our preliminary determination, which included a Technical Support Document, to designate Massachusetts as the COA. On March 14, 2019 the EPA made a final determination to designate Massachusetts the COA for this project.[6]

The federal requirements that apply to OCS sources are provided in 40 C.F.R. § 55.13. The EPA also reviews the state and local air requirements of the COA to determine which requirements should be applicable on the OCS and revises 40 C.F.R. part 55 to incorporate by reference those state and local air control requirements that are applicable to OCS sources (40 C.F.R. § 55.12). Once the EPA completes its rulemaking to revise 40 C.F.R. part 55, the state and local air regulations incorporated into 40 C.F.R. part 55 become federal law and apply to any OCS source associated with that COA.

Under this "consistency update" process, the EPA must incorporate applicable state and local rules into 40 C.F.R. part 55 as they exist onshore. This limits the EPA's flexibility in deciding which requirements will be incorporated into 40 C.F.R. part 55 and prevents the EPA from making substantive changes to the requirements it incorporates. As a result, the EPA may be incorporating rules into part 55 that do not conform to certain requirements of the CAA or are not consistent with all of the EPA's state implementation plan (SIP) guidance. The EPA includes all state or local air requirements of the COA except any that are not rationally related to the attainment or maintenance of federal or state ambient air quality standards or part C of title I of the Act, that are designed expressly to prevent exploration and development of the OCS, that are not applicable to OCS sources, that are arbitrary or capricious, that are administrative or procedural rules, or that regulate toxics which are not rationally related to the attainment and maintenance of federal and state ambient air quality standards.

Consistency updates may result in the inclusion of state or local rules or regulations into 40 C.F.R. part 55, even though the EPA may ultimately disapprove the same rules for inclusion as part of the SIP. Inclusion in the OCS rule does not imply that a rule meets the requirements of

[5] *See* 40 C.F.R. § 55.6(a)(3).

[6] Copies of the EPA's final designation of Massachusetts as the COA, the December 18, 2018 request from Massachusetts, the preliminary determination and technical support document, and supporting information are included in the administrative record for this action.

the CAA for SIP approval, nor does it imply that the rule will be approved by the EPA for inclusion in the SIP.

On February 12, 2018 (83 FR 5971), the EPA published a Notice of Proposed Rulemaking (NPRM) proposing to incorporate various Massachusetts air pollution control requirements into 40 C.F.R. part 55. On March 9, 2018, the Commonwealth of Massachusetts amended certain regulatory provisions that pertained to the EPA's February 12, 2018 proposed rulemaking. Subsequently, the EPA reopened the comment period for 30 days and provided notice that the EPA modified the proposed regulatory text for incorporation by reference in the consistency update. *See* 83 FR 21254 (May 9, 2018). The EPA published the final rulemaking notice for the consistency update to part 55 on November 13, 2018. *See* 83 FR 56259. The Massachusetts regulations that the EPA incorporated into part 55 in this action are the applicable provisions of (1) 310 CMR 4.00: Timely Action Schedule and Fee Provisions; (2) 310 CMR 6.00: Ambient Air Quality Standards for the Commonwealth of Massachusetts; (3) 310 CMR 7.00: Air Pollution Control; and (4) 310 CMR 8.00: The Prevention and/or Abatement of Air Pollution Episode and Air Pollution Incident Emergencies, as amended through March 9, 2018.

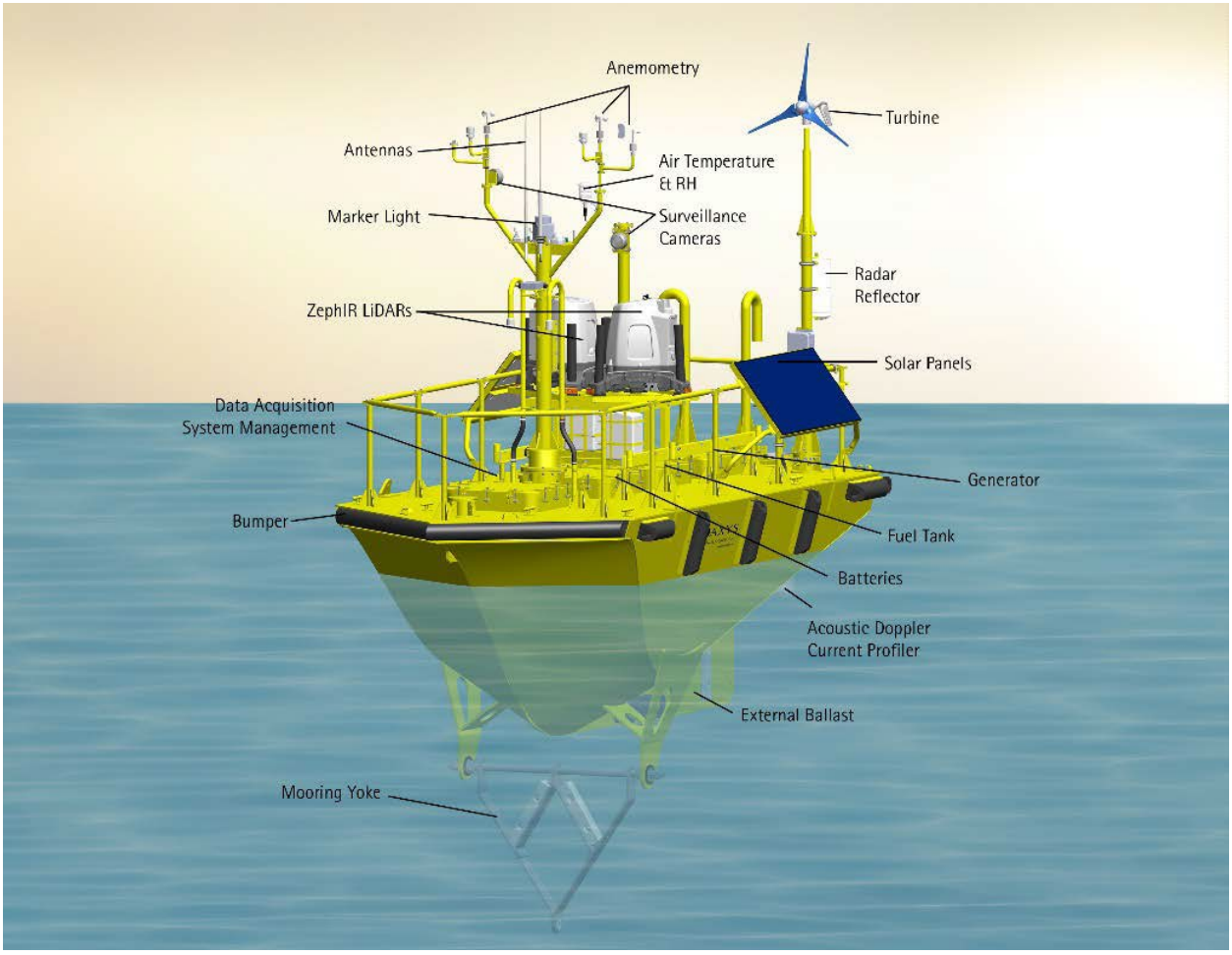
The OCS permit applicant then follows the procedural requirements to obtain a federal permit as outlined in 40 C.F.R. part 124. The applicant submits an air permit application that provides the information to show that it will comply with all applicable federal requirements, including those requirements found in 40 C.F.R. part 55 (which, because of the consistency update, include certain state and local requirements incorporated by reference into federal law), and any other federal standard that may apply to the source. The EPA reviews the application and proposes either to approve or deny the application. Next, if the EPA decides to propose approval, the EPA drafts a proposed air permit and a fact sheet that documents its proposed permit decision. The EPA then provides a notice and comment period of at least 30 days for the draft permit and may also hold a public hearing if there is a significant degree of public interest and/or a hearing might clarify issues involved in the permit decision. Following the comment period, the EPA responds to all significant comments raised during the public comment period, or during any hearing, and issues the final air permit decision.[7]

IV. Project Description

The Met Buoy project will consist of an AXYS Floating Light Detection and Ranging 6M buoy (FLiDAR 6M), consisting of instrumentation systems and supporting systems atop a floating moored buoy platform as shown in Figure 1.

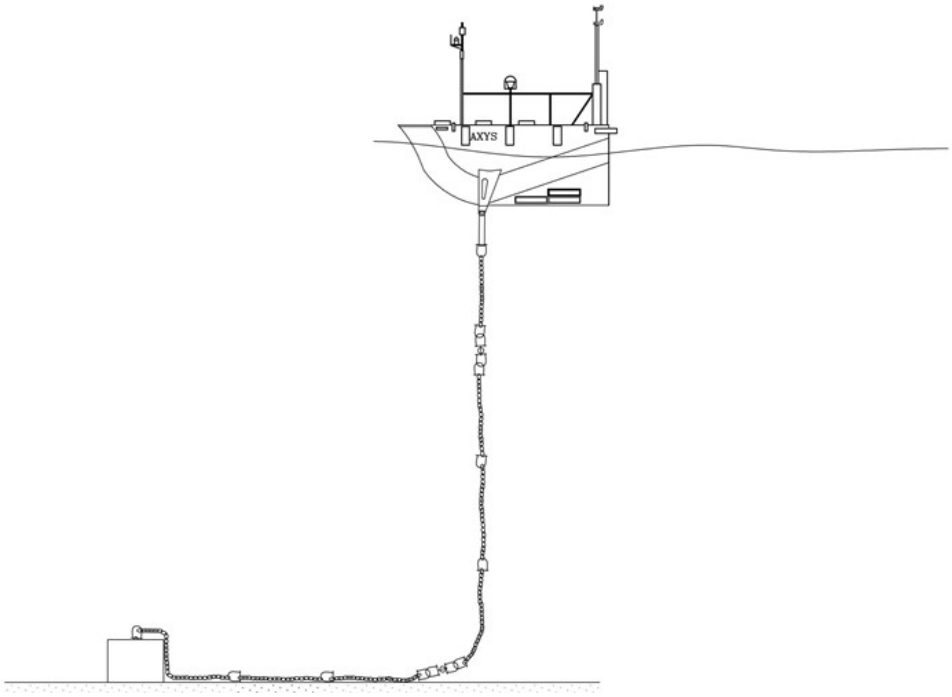
[7] See Section X below for more details regarding the public comment process for this draft permit.

Figure 1: Met buoy



The floating platform consists of the AXYS Navy Oceanographic Meteorological Automated Device (NOMAD) hull, mooring chain, and clump weight anchor. The hull would be moored to the seabed using a steel chain attached to one or two concrete clump weight anchors as shown in Figure 2.

Figure 2 Attachment to the Seabed



The Met Buoy will be powered by a rechargeable battery pack, which can be charged by an onboard wind turbine, solar panels, or a back-up engine generator. The back-up power will be provided by an onboard 8.5 kilowatt (kW) ultra-low sulfur diesel-fired engine with associated 225-gallon fuel oil tank.[8] The engine will be a Tier 4 EPA-certified engine.[9]

The Met Buoy project will consist of three phases; deployment, operation, and decommissioning. To deploy the Met Buoy and the seabed attachment system, DWW may employ two different types of marine vessels. These are vessels that either attach to the seabed or use a dynamically position system to remain stationary. The vessels could include a flat-top barge or comparable work vessel and a handling tugboat. The draft permit will allow the use of any of these vessel types. Once the buoy is installed, a work vessel will be deployed approximately twice per year to maintain the device and retrieve data. The Met Buoy is expected to be deployed for a six-year period. During the decommissioning phase, the Met Buoy will be removed from the waters above the OCS, and the equipment used will be similar to that used during the deployment phase.

V. Met Buoy Project Emissions

Yearly emissions from the entire project must be calculated to determine the applicable permit requirements. A project being built on the OCS must consider not only the air emissions from OCS sources but also air emissions from vessels under certain circumstances. Within the definition of "potential emissions" at 40 C.F.R. § 55.2, the EPA states "[p]ursuant to section 328 of the Act, emissions from vessels servicing or associated with an OCS source shall be considered direct emissions from such a source while at the source, and while enroute to or from

[8] The July 12, 2018 application stated the engine size would be 6 kW. However, in an e-mail from DWW to the EPA on November 28, 2018, DWW provided information indicating the engine size would be 8.5 kW.
[9] *See* 40 C.F.R. §60.4204.

the source when within 25 miles of the source, and shall be included in the "potential to emit" for an OCS source."

DWW provided the EPA the project's emissions in its application. In an e-mail to the EPA dated November 7, 2018, DWW provided further information regarding the basis of the project's total emission calculations. The EPA has reviewed DWW's calculations of the project's potential emissions and we are providing the project's potential emissions in Table 1 below.

Table 1
Met Buoy Project's Potential Emissions

Areas where emissions occur (tons per year)		CO	NO_X	PM_{10}	$PM_{2.5}$	SO_2	VOC
1	Construction Emissions	3.07	6.10	0.37	0.36	0.0041	0.31
2	Annual Maintenance Emissions	0.15	0.30	0.008	0.008	0.0002	0.008
3	Decommissioning Emissions	3.07	6.10	0.37	0.36	0.0041	0.31
4	Maximum annual emissions	3.22	6.40	0.38	0.37	0.0043	0.32

As shown in Table 1, the maximum emissions for any criteria pollutant in one year will be 6.4 tons of nitrogen oxides (NO_x). This means the project is not subject to major new source review. Since this project qualifies as an actual minor source for new source review, an emission cap in the OCS permit is not required.

VI. Applicability of 40 C.F.R. part 55 OCS Air Regulations Requirements to the Met Buoy Project.

Under CAA § 328(a)(4)(C) and 40 C.F.R. § 55.2, an OCS source includes any equipment, activity, or facility which:

(1) Emits or has the potential to emit any air pollutant;

(2) Is regulated or authorized under the OCSLA (43 U.S.C. § 1331 et seq.); and

(3) Is located on the OCS or in or on waters above the OCS.

Furthermore, 40 C.F.R. § 55.2 establishes that the OCS source definition shall include vessels that are:

(1) 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

(2) Physically attached to an OCS facility, in which case only the stationary sources [sic] aspects of the vessels will be regulated.

Finally, under 40 C.F.R. § 55.2, the term "[o]uter continental shelf" shall have the meaning provided by section 2 of the OCSLA (43 U.S.C. § 1331 et seq.), which in turn defines the "outer continental shelf" as "all submerged lands lying seaward and outside of the area of lands beneath navigable waters as defined in section 1301 of this title, and of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control."

Once a facility, vessel, equipment, or activity is considered an OCS source, then the emission sources of that OCS source become subject to the requirements of 40 C.F.R part 55, which include: (1) obtaining an OCS air permit, as required by 40 C.F.R. § 55.6; (2) complying with the applicable federal regulations and requirements specified at 40 C.F.R. § 55.13; (3) for OCS sources within 25 miles of a state's seaward boundary, complying with the COA's state or local air emissions requirements specified under 40 C.F.R. § 55.14; (4) monitoring, reporting, inspection, and enforcement requirements specified at 40 C.F.R. §§ 55.8 and 55.9; and (5) permit fees as specified under 40 C.F.R. § 55.10.[10]

Based on the above, the EPA has determined the following regarding the Met Buoy project.

1. The Met Buoy is an OCS source because it meets these three criteria:

   a) The diesel generator installed on the Met Buoy is functional and emits or has the potential to emit an air pollutant.

   b) DWW was required to obtain a site assessment plan from BOEM for the Met Buoy, thus the buoy is authorized under OCSLA.

   c) Based on the location of the Met Buoy, as stated in Section I of this Fact Sheet, the Met Buoy is located on the OCS or in or on waters above the OCS.

2. The work vessel that will be used to deploy the anchoring system and the Met Buoy may be considered an OCS source, depending on whether the vessel temporarily attaches to the seabed or the Met Buoy. The circumstances under which the work vessel becomes an OCS source is discussed at Section VII.B. of this Fact Sheet.

3. The tug boat that may be used to move the work vessel to the job site would not be considered an OCS source since the tug boat will not be temporarily or permanently attached to the seabed, nor will it be physically attached to an OCS source (i.e. the Met Buoy).

4. The work vessel used during the operation and maintenance phase of the Met Buoy project may be considered an OCS source. The circumstances under which the work vessel would become an OCS source is discussed at Section VII.B. of this Fact Sheet.

VII. Federal Requirements Applicable to the Met Buoy Project

A. Diesel Engine on the Met Buoy

[10] If it is found in the future that the Met Buoy itself no longer meets all three criteria for being an OCS source, the OCS permit may be terminated. *See* Section XV. of the associated draft permit for language regarding this possible scenario.

Forty C.F.R. § 55.13(c) states:

> "40 CFR Part 60 (NSPS) shall apply to OCS sources in the same manner as in the COA, except that any source determined to be an existing source pursuant to § 55.3(e) of this part shall not be considered a "new source" for the purpose of NSPS adopted before December 5, 1991."

As provided in CAA § 328(a)(1), all standards adopted under CAA § 328 are considered standards under CAA § 111 (which apply only to stationary sources) and the term "new OCS source" is defined in "stationary source" terms pursuant to CAA § 111(a). See CAA § 328(a)(4)(D).

Based on the fact that standards under CAA § 111 apply to emission units located on OCS sources, the EPA has determined the diesel engine located on the Met Buoy is subject to 40 C.F.R, part 60, subpart IIII.

Under 40 C.F.R. part 60, subpart IIII, the Met Buoy engine meets the applicability criteria at 40 C.F.R. § 60.4200(a)(2), which states:

> "Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:
>
> (i) Manufactured after April 1, 2006, and are not fire pump engines, or
>
> (ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006."

For the purposes of this requirement, the date that construction commences is the date the engine is ordered by the original owner or operator. Based on the information provided by DWW,[11] the engine on the Met Buoy is a model year 2011, 8.5 kilowatt (kW), 0.57 liters per cylinder (l/cyl), diesel-fired engine. Accordingly, construction of the engine on the Met Buoy commenced after July 11, 2005 and was manufactured after April 1, 2006. Therefore, this engine is subject to the requirements of subpart IIII for 2007 and later model year non-emergency engines with a displacement of less than 30 l/cyl constructed after July 11, 2005 and manufactured after April 1, 2006 specified in § 60.4204(b).

B. Vessels Used to Deploy, Operate and Decommission the Met Buoy

Vessels, by definition, are considered "OCS sources" under certain circumstances. As stated earlier, when determining a project's potential emissions part 55 requires that emissions be included from: 1) a vessel that is considered an OCS source; and 2) a vessel when it is going to and from an OCS source within 25 miles of the OCS source

Forty C.F.R. § 55.2 establishes that vessel(s) meet the OCS source definition when the vessel(s) are:

[11] See e-mail from DWW to the EPA on November 28, 2018, which is included in the administrative record for this action.

(1) 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

(2) Physically attached to an OCS facility, in which case only the stationary sources [sic] aspects of the vessels will be regulated.

In its application, DWW states that the vessels used during the installation and decommissioning phases may either be dynamically positioned (i.e., would not be attached to anything) or temporarily attached to the seabed. During the operational phase, the vessel may be either dynamically positioned, temporarily attached to the seabed, or attached to the Met Buoy.

The EPA has determined that a vessel used for the Met Buoy project is an OCS source when either the vessel attaches to the Met Buoy once the Met Buoy is installed and the diesel engine on the buoy is functional, or when the vessel is attached to the seabed, erected thereon, and used for the purpose of exploring, developing or producing resources therefrom.

Once a vessel is determined to be an OCS source, the EPA must then determine the applicable requirements for all emission units located on the OCS source. In an Environmental Appeals Board (EAB) Decision *In Re Shell Offshore, Inc., Kulluk Drilling Unit and Frontier Discoverer Drilling Unit*, 13 E.A.D. 357, 380 (EAB 2007), the EAB stated:

"We find that the Region correctly concluded that, once it determines an emissions source located on the OCS is properly classified as an "OCS source," then that emissions source becomes subject to the requirements of 40 C.F.R. part 55. Further, the permitting programs and other requirements to which the OCS source is subject through part 55, including the PSD permitting program, then apply to the OCS source based on the regulations that define the scope of those programs. Specifically, simply because EPA has identified an OCS source as regulated under the CAA, and subject to the requirements of part 55, does not mean it can avoid the next necessary step of determining the scope of the "stationary source" for PSD purposes."

In accordance with the principle articulated in the EAB's decision quoted above, the EPA must determine the regulations that apply to the OCS source based on the regulations that define the scope of the Clean Air Act program in question. The EPA has determined that engines on a vessel are considered stationary sources and not nonroad engines when the engines are operating while the vessel meets the definition of an OCS source. The OCS source definition in Section 328(a)(4)(C) of the CAA states that the OCS source includes "any equipment, activity, or facility which – emits or has the potential to emit any air pollutant." Furthermore, CAA section 328(a)(4)(D) defines the term "new OCS source" to mean "an OCS source which is a new source within the meaning of section [111(a)] of [the CAA]." Inherent in the definition of "new source" under Section 111 is that the source to be regulated is a stationary source. *See* Section 111(a)(2) of the CAA.

Moreover, the regulatory definition of OCS source in 40 C.F.R. § 55.2 provides that, for vessels physically attached to an OCS facility, "only the stationary sources [sic] aspects of the vessels will be regulated." See 40 C.F.R. § 55.2 (definition of OCS source). There would be no point to considering the "stationary source aspects" of a vessel attached to an OCS source to be part of an OCS source in 40 C.F.R. § 55.2 unless "such stationary source aspects" were considered and

regulated in some other way than as emissions from vessels within 25 miles of an OCS source, because emissions from otherwise nonroad engines on vessels within 25 miles of the OCS source count as direct emissions from the OCS source for purposes of determining potential emissions. Section 328 of the CAA plainly requires that emission units on OCS sources be regulated as stationary sources except with respect to propulsion engine emissions from vessels attached to an OCS source.

Consideration of the emission sources on a typical vessel that is determined to be an OCS source makes clear that neither Congress nor EPA could have intended to exclude otherwise nonroad engines from regulation as stationary sources if part of an OCS source. Congress's specific grant of authority to EPA in the 1990 CAA amendments to regulate OCS sources would be rendered meaningless if emissions from engines that would otherwise be considered nonroad engines and that comprise the emission units on the vessels were excluded from regulation as stationary sources.

Given that an engine is a stationary source when located on an OCS source for purposes of Section 111 of the CAA, it is only logical to determine that these same engines are stationary sources for purposes of other CAA programs, for example any applicable MACT standard such as 40 C.F.R. part 63, subpart ZZZZ. Furthermore, 40 C.F.R. §55.13(e) states that the "provisions promulgated pursuant to section 112 of the Act, shall apply if rationally related to the attainment and maintenance of Federal or State ambient air quality standards or the requirements of part C of title I of the Act." Thus, all engines located on the OCS source (i.e., a vessel that meets the definition of an OCS source) shall be subject to the same requirements of 310 CMR 7.00 as the Met Buoy engine, 40 C.F.R. part 60 subpart IIII or subpart JJJJ (spark ignition engine) and 40 C.F.R. part 63, subpart ZZZZ.[12]

C. COA Requirements Applicable to the Met Buoy Project

As previously stated, the COA for the Met Buoy project is the Commonwealth of Massachusetts. On December 11, 2017, a different entity (Vineyard Wind, LLC) submitted to the EPA a Notice of Intent (NOI) for an offshore wind development project in the renewable energy lease area adjacent to the location of DWW's Met Buoy. Under 40 C.F.R. § 55.12(c), the NOI triggered a consistency review of EPA's previous incorporation of Massachusetts rules. DWW submitted an NOI for the Met Buoy on February 16, 2018, which triggered the same consistency review already in process. The EPA completed its consistency review on November 13, 2018 and updated the incorporation of Massachusetts regulations into 40 C.F.R. part 55, appendix A. *See* 83 FR 56259 (November 13, 2018).

Thus, the Met Buoy project is subject to applicable provisions of the Massachusetts air pollution control regulations which are codified at 310 Code of Massachusetts Regulations (CMR) 4.00 (Timely Action Schedule and Fee Provisions), 6.00 (Ambient Air Quality Standards for the Commonwealth of Massachusetts), 7.00 (Air Pollution Control), and 8.00 (The Prevention and/or Abatement of Air Pollution Episode and Air Pollution Incident emergencies). These Commonwealth regulations are contained in 40 C.F.R. part 55, appendix A. This section (VII.C) identifies which Massachusetts regulations incorporated into appendix A apply to the Met Buoy

[12] In promulgating 40 C.F.R. part 63, subpart ZZZZ, the EPA established that hazardous air pollutant emissions from engines are rationally related to the attainment and maintenance of Federal or State ambient air quality standards.

engine and the stationary sources located on any vessel that meets the definition of an OCS vessel and which result in terms and condition(s) specified in permit number OCS-R1-02.

1. 310 CMR 7.02: Plan Approval and Emission Limitations

DWW states in its application that the engine installed on the Met Buoy is exempt from 310 CMR 7.02 because the engine operates as a stand-by engine. See project description in Section IV regarding the purpose of the engine. The EPA disagrees that the Met Buoy is exempt from 310 CMR 7.02 and has determined that the Met Buoy engine is subject to the requirements under 310 CMR 7.02. Our determination is based on the following:

1) The size of the Met Buoy engine is 8.5 kwh.

2) The manufacturing date of the Met Buoy engine is January 2011. The date the engine was installed on the Met Buoy occurred on or after January 2011.

3) 310 CMR 7.02(1)(b) requires a plan approval prior to construction of a facility or emission unit, such as the Met Buoy engine, as follows:

> "Except as provided in 310 CMR 7.02(2), a plan approval is required prior to any construction, substantial reconstruction, alteration, or subsequent operation of a facility or emission unit that may emit air contaminants to the ambient air."

4) 310 CMR 7.02(2) contains a list of exemptions from plan approvals. The Met Buoy engine does not qualify for any of these exemptions.

For example, the exemption from limited plan approval requirements in 310 CMR 7.02(4) for stand-by engines can be found at 310 CMR 7.02(2)(b)(8), which states:

> "An emergency or stand-by engine that operates in compliance with the provisions of 310 CMR 7.02(8)(i) if installed prior to June 1, 1990 or is in compliance with 310 CMR 7.03 for units installed on or after June 1, 1990. An emergency or stand-by engine that is approved under 310 CMR 7.02(5) shall comply with the terms and conditions of the plan approval."

The exemption cited above does not apply to the Met Buoy engine because it was installed after 1990 and 310 CMR 7.03(10)(a) only applies to engines constructed on or after June 1, 1990, but prior to March 23, 2006. Therefore, neither of the criteria identified in the quoted paragraph above for an exemption to a limited plan approval applies to the Met Buoy engine.

In addition, 310 CMR 7.02(5)(a)(3)(c) allows an owner/operator to comply with general permit regulations in lieu of obtaining a comprehensive plan approval (CPA) under 310 CMR 7.02(5) if certain conditions are met. The Met Buoy engine does not qualify for coverage by a general permit under 310 CMR 7.26(42) because of its size, i.e., it is less than the 37 kW applicability threshold in 310 CMR 7.26(42)(a). The Met Buoy engine also does not qualify for coverage by a general permit under 310 CMR 7.26(43) because of its size, i.e., it is less than the 50 kW applicability threshold in 310 CMR 7.26(43). Therefore, the Met Buoy engine is subject to a plan approval under 310 CMR 7.02(5)(c).

To comply with a CPA, a best available control technology (BACT) analysis must be performed. (310 CMR 7.02(8)(a)(2)). Usually, when the EPA conducts a BACT analysis, the agency utilizes a detailed five-step top down approach to determine the best control technology and emission limits. However, due to the size of the Met Buoy engine, with the engine itself emitting less than 1 ton per year of any regulated air pollutant, add-on controls are not technically available or economically feasible. Therefore, the EPA finds the emission limits established pursuant to 40 C.F.R. part 60, subpart IIII to be BACT.

2. 310 C.M.R. 7.05 U Fuels All Districts

310 CMR 7.05(1)(a)(1) limits the amount of sulfur content by weight in the fuel to 15 parts per million. This fuel is commonly known as ultra-low sulfur diesel. This requirement has been incorporated into the draft permit.

3. 310 C.M.R. 7.06 U Visible Emissions

This section of the Commonwealth's regulations limits the opacity and smoke density from the Met Buoy engine. These requirements have been incorporated into the draft permit.

VIII. Consultations

For the purposes of the Endangered Species Act (ESA), Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), National Historic Preservation Act (NHPA), and Coastal Zone Management Act (CZMA), the issuance of an OCS air permit is a federal action undertaken by the EPA. The Met Buoy project is also a federal action for BOEM. BOEM requires Deepwater Wind to obtain a Site Assessment Plan (SAP) approval before installing the Met Buoy. As previously documented in correspondence to applicable authorities, the EPA assesses its own permitting action (i.e., to issue an OCS air permit for the Met Buoy project) as interrelated to, or interdependent with, the BOEM's SAP approval of the Met Buoy project. Accordingly, the EPA has designated the BOEM as the lead Federal agency for purposes of fulfilling statutory obligations under the aforementioned statutes.[13] The BOEM has accepted the designation as lead Federal agency. [14]

A. Endangered Species Act and Magnuson – Stevens Fishery Conservation and Management Act

Under Section 7(a)(2) of the ESA, 16 U.S.C. § 1536(a)(2), the EPA must ensure that any action authorized, funded, or carried out by the EPA is not likely to jeopardize the continued existence of any federally listed endangered species or threatened species or result in the destruction or adverse modification of such species' designated critical habitat. If the EPA's action (i.e., OCS air permit issuance) may affect a federally listed species or designated critical habitat, Section 7(a)(2) of the ESA and relevant implementing regulations at 50 C.F.R. part 402 require consultation between the EPA and the U.S. Fish and Wildlife Service (FWS) and/or the National Marine Fisheries Service (NMFS), depending on the species and/or habitat at issue.

[13] A copy of the September 24, 2018 letter from BOEM to EPA R1 accepting lead agency designation is included in the administrative record for this action.

[14] A copy of the July 25, 2018 letter from EPA R1 to BOEM regarding lead agency designation is included in the administrative record for this action.

In accordance with Section 305(b)(2) of the Magnuson-Stevens Act (MSA), 16 U.S.C. § 1855(b)(2), Federal agencies are also required to consult with the NMFS on any action that may result in adverse effects to essential fish habitat (EFH).

On October 12, 2017, BOEM approved the SAP submitted by Deepwater Wind for the installation, operation, and decommissioning of a meteorological buoy in Renewable Energy Lease Number OCS-A 0486. As part of the approval process, BOEM consulted with the NMFS to determine the activities in the SAP were consistent with the programmatic Biological Opinion issued by NMFS to BOEM on April 10, 2013, for the Massachusetts, Rhode Island, New Jersey, and New York Wind Energy Areas, which includes Deepwater Wind's Renewable Energy Lease Number OCS-A 0486.

The EPA concludes that the action of issuing an OCS air permit for the proposed installation of the Met Buoy in the NOI is an "interrelated action" to the SAP approval. On May 21, 2018, the EPA notified the NMFS that EPA reviewed the April 10, 2013, Biological Opinion and concluded that the action of issuing an OCS air permit to Deepwater Wind for the Met Buoy Project is encompassed in the actions addressed by the April 10, 2013, programmatic Biological Opinion.[15] On October 29, 2018, the NMFS confirmed that the effects of EPA's action to issue an OCS air permit for the installation of a Met Buoy fall within the scope of activities already reviewed by the NMFS and that no further consultation under ESA and MSA for this action is necessary, as consultation requirements are completed.[16]

B. National Historic Preservation Act

Section 106 of the NHPA, 16 U.S.C. 470f, and the implementing regulations at 36 C.F.R. part 800 require federal agencies to consider the effect of their actions on historic properties and afford the opportunity for the Advisory Council on Historic Preservation (ACHP) and consulting parties to consult on the federal undertaking. The EPA's issuance of OCS air permits are federal undertakings under the NHPA.

On May 23, 2012, the BOEM entered into a Programmatic Agreement with the State Historic Preservation Officers (SHPOs) of Massachusetts and Rhode Island, the Tribal Historic Preservation Officers (THPOs) of the Mashpee Wampanoag Tribe, the Wampanoag Tribe of Gay Head (Aquinnah) and the Narragansett Indian Tribe, and the ACHP. The Programmatic Agreement addresses leasing and site assessment activities for renewable energy development, including wind energy, on the OCS off Massachusetts and Rhode Island.

As previously discussed, the BOEM approved the SAP submitted by Deepwater for the installation, operation, and decommissioning of a Met Buoy in Renewable Energy Lease Number OCS-A 0486 on October 12, 2017. As part of the approval process, the BOEM made a Finding of No Historic Properties Affected for this undertaking on September 21, 2016, pursuant to 36 C.F.R. §800.4(d)(1) and determined that no historic properties were identified within the area of potential affects.[17]

[15] A copy of the May 21, 2018 letter from EPA R1 to NMFS is included in the administrative record for this action.
[16] A copy of the October 29, 2018 email concurrence from NMFS to EPA is included in the administrative record for this action.
[17] A copy of the September 21, 2016 Finding of No Historic Properties Affected is included in the administrative record for this action.

The EPA reviewed the September 21, 2016, Finding of No Historic Properties Affected and concluded that the action of issuing an OCS air permit to Deepwater Wind for the Met Buoy project is encompassed in the actions addressed by the September 21, 2016, finding. Therefore, the EPA concludes that no historic properties will be affected from the issuance of an OCS air permit. On October 2, 2018, the EPA notified the SHPOs of Massachusetts and Rhode Island, the THPOs of the Mashpee Wampanoag Tribe, the Wampanoag Tribe of Gay Head (Aquinnah) and the Narragansett Indian Tribe, and the ACHP of its determination that the effects of the action to issue an OCS air permit for the installation of a Met Buoy fall within the scope of activities for the installation of a Met Buoy in Renewable Energy Lease Number OCS-A 0486 previously assessed by the BOEM and that no historic properties will be affected.[18]

C. Coastal Zone Management Act

Section 307 of the CZMA, 16 U.S.C. § 1456, and the implementing regulations at 15 C.F.R. 930 provide a federal consistency process for state programs to use to manage coastal activities and resources and to facilitate cooperation and coordination with federal agencies. Generally, federal consistency requires that federal actions, within and outside the coastal zone, which have reasonably foreseeable effects on any coastal use (land or water) or natural resource of the coastal zone be consistent with the enforceable policies of a state's federally approved coastal management program. Federal actions include federal agency activities, federal license or permit activities, and federal financial assistance activities. Federal agency activities must be consistent to the maximum extent practicable with the enforceable policies of a state coastal management program, and license and permit and financial assistance activities must be fully consistent.

Under 15 C.F.R. 930, subpart D, a non-federal applicant for a federal license or permit is required to provide a state with a *consistency certification* if the state has identified the federal license or permit on a list of activities subject to federal consistency review in its federally approved coastal management program. State federal consistency lists identify the federal agency, federal license or permit, and federal financial assistance activities that are subject to federal consistency review if the activities occur within a state's coastal zone pursuant to the applicable subparts of the regulations at 15 C.F.R. part 930. The EPA has reviewed the listed federal actions for federal license or permit activities for Massachusetts and Rhode Island.[19] The EPA's action to issue an OCS air permit under the regulations at 40 C.F.R. part 55 is not included on the current list of federal actions for federal consistency review. Thus, issuance of this OCS air permit is not required to be preceded by a federal consistency review.[20]

IX. Environmental Justice

Executive Order (EO) 12898 entitled "Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations" requires that federal agencies identify and address, as appropriate and to the extent practicable and permitted by existing law,

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[18] Copies of the October 2, 2018 notification letters to the SHPOs, THPOs and ACHP are included in the administrative record for this action.

[19] State federal consistency lists can be accessed online at https://www.coast.noaa.gov/czm/consistency/states/. (last visited on February 5, 2019).

[20] The EPA confirmed with the State of Rhode Island and the Commonwealth of Massachusetts that the states do not seek a consistency review for the OCS air permit. A copy of the email confirmation from Rhode Island and Massachusetts is included in the administrative record for this action.

disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. *See* Executive Order 12898, Section 1-101, 59 Fed. Reg. 7,629 (Feb. 16, 1994). Consistent with EO 12898 and the EPA's "Plan EJ 2014: Considering Environmental Justice in Permitting,"[21] the EPA must (1) consider the environmental justice issues, on a case by case basis, connected with the issuance of federal permits (particularly when permitting projects for major sources that may involve activities with significant public health or environmental impacts on already overburdened communities); and (2) focus on whether the federal permitting action would have disproportionately high and adverse human health or environmental effects on minority or low income populations.

The EPA defines "Environmental Justice" as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and polices. The EPA's goal with respect to Environmental Justice in permitting is to enable overburdened communities to have full and meaningful access to the permitting process and to develop permits that address environmental justice issues to the greatest extent practicable under existing environmental laws. *Overburdened* is used to describe the minority, low-income, tribal and indigenous populations or communities in the United States that potentially experience disproportionate environmental harms and risks as a result of greater vulnerability to environmental hazards.

A. Air Quality Review

For purposes of Executive Order 12898 on environmental justice, the EPA has recognized that compliance with the National Ambient Air Quality Standards (NAAQS) is "emblematic of achieving a level of public health protection that, based on the level of protection afforded by a primary NAAQS, demonstrates that minority or low-income populations will not experience disproportionately high and adverse human health or environmental effects due to the exposure to relevant criteria pollutants." *In re Shell Gulf of Mexico, Inc. & Shell Offshore, Inc.*, 15 E.A.D., slip op. at 74 (EAB 2010). This is because the NAAQS are health-based standards, designed to protect public health with an adequate margin of safety, including sensitive populations such as children, the elderly, and asthmatics. The EPA has determined that issuance of this OCS permit will not contribute to NAAQS violations or have potentially adverse effects on ambient air quality.

B. Environmental Impacts to Potentially Overburdened Communities

The EPA has concluded that the Met Buoy project's emissions would not have disproportionately high or adverse human health or environmental effects on minority or low-income populations. While the draft OCS air permit for the Met Buoy project is part of a federal permitting action, as discussed in this Fact Sheet, the Met Buoy project will not be a major source as defined under CAA regulations. The Met Buoy project's potential to emit for any criteria pollutant for this project is well below major sources thresholds. The Met Buoy will be located 17 miles from the nearest shoreline of Block Island, Rhode Island and 23 miles from

[21] For additional information on addressing environmental justice in permitting, *see, e.g.,* the EPA's "Plan EJ 2014: Considering Environmental Justice in Permitting," available at https://www.epa.gov/environmentaljustice/plan-ej-2014-considering-environmental-justice-permitting. (last visited on February 5, 2019).

Nomans Land Island, Massachusetts. Consequently, the majority (if not all) of the emissions associated with the Met Buoy project would be generated at the OCS location and localized near that location, remaining well away from the shore (i.e., populated area). Further, the impact of those emissions would be dispersed over a wide area of the OCS.

As stated by BOEM in its May 2013 revised Environmental Assessment (EA), the area encompassed by the Mid-Atlantic Wind Energy Area, including the DWW Met Buoy location, is used actively for both commercial and recreational fishing.[22] Individual fishing communities that use the Met Buoy OCS area for recreational or commercial fishing purposes could be minority or low-income populations. The application indicates that the vast majority of the Met Buoy project emissions would occur during installation, maintenance and decommission, which involve the use of workboat and support vessels. As previously noted, the amount of these emissions is very low and would occur during very short periods of time. The EPA notes that the potential adverse health effects (if any) of these emissions on recreational or commercial fishermen (including any that may belong to minority or low-income populations) will be reduced (if not entirely avoided) by BOEM's requirement in the Record of Decision which states that lessees and grantees shall notify state and federal regional fishery management organizations and local fishing groups of the location and timeframe of the project construction/installation activities well in advance of mobilization with updates throughout the construction/installation period. This notification would allow commercial and recreational fishermen to avoid the area where the installation, maintenance and decommission would take place and the emissions would occur.

The emissions generated during operation of the back-up generator Met Buoy engine would be very low, since the operation of the Met Buoy diesel engine is anticipated to be less than 88 hr/yr, and the engines are certified to meet the NSPS emissions standards. In addition, work practice standards that will be employed during the Met Buoy project include minimizing the idling of the engines of the boats; and the back-up generator on the buoy will use ultra-low sulfur diesel to minimize sulfur and particulate emissions. The EPA notes that some of the emissions generated by the engines associated with the workboat and support vessels' engines, which will depart from and return to Quonset, Rhode Island (or comparable existing port in the northeast) would occur near shore (within State water or near the State/Federal waters boundary). However, EPA notes that these emissions would add a small amount to the current vessel traffic emissions in the area, and, given their very low-level and very short duration, would have minor (if any) human health or environmental effects on the overall population, including any minority or low-income population.

EPA is aware that the temporary onshore activities related to the Met Buoy project (staging, launching of workboat and support vessels, some limited assembly and repairs activities) would have the potential to generate emissions, but those emissions are not subject to this OCS air permit. In its May 2013 EA, BOEM acknowledged that the onshore activities related to the installation of Met Buoys generally have the potential to impact minority or low-income population. However, BOEM stated that the onshore activities will be performed at already existing coastal facilities, and no expansion of the existing facilities and no significant increase in activity at these existing facilities is anticipated. Thus, BOEM concluded that the low level of emissions from onshore activities associated with Met Buoys and towers, such as the Met Buoy project, will be temporary in nature and will not have disproportionately high or adverse environmental or health effects on minority or low-income population.

[22] A copy of BOEM's May 2013 EA can be found in the administrative record for this action.

C. Tribal Consultation and Enhanced Public Participation

Per the *EPA Policy on Consultation and Coordination with Indian Tribes*, the EPA Region 1 offers tribal government leaders an opportunity to consult on all OCS air permit actions. On August 10, 2018, the EPA notified the tribes in Massachusetts, Rhode Island, and Connecticut and provided the opportunity to conduct government-to-government consultation prior to issuing the OCS air permit.[23] To date the EPA has not received a request from any tribe requesting consultation on this permit action. However, the tribes may request consultation at any time.

In order to comply with the Section 5-5(c) ("Public Participation and Access to Information") of EO 12898, which requires that each federal agency work to ensure that public documents, notices, and hearings relating to human health or the environment are concise, understandable, and readily accessible to the public, the EPA has prepared a simplified Public Notice, available on the EPA website at https://www.epa.gov/caa-permitting/caa-permitting-epas-new-england-region. Interested parties can also subscribe to an EPA email list that notifies them of public comment opportunities in Region 1 for proposed air pollution control permits via email at https://www.epa.gov/caa-permitting/caa-permitting-epas-new-england-region. These procedures, along with this Fact Sheet, will ensure an opportunity for meaningful involvement for all communities.

X. Comment Period, Hearings and Procedures for Final Decisions

All persons, including applicants, who believe any condition of the Draft Permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to Donald Dahl (OEP 05-2) U.S. Environmental Protection Agency 5 Post Office Square - Suite 100 Boston MA 02109 - 3912.

A public hearing will be held during the public comment period. See the public notice for details. The EPA will consider requests for extending the public comment period for good cause. In reaching a final decision on the Draft Permit, the EPA will respond to all significant comments and make these responses available to the public at the EPA' s Boston Office.

Following the close of the public comment period, and after the public hearing, the EPA will issue a Final Permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within 30 days following the notice of issuance of the final permit decision, any interested parties may submit a petition for review of the final permit decision to the EPA's Environmental Appeals Board consistent with 40 C.F.R. 124.19.

XI. EPA Contacts

Additional information concerning the draft permit may be obtained between the hours of 8:00 a.m. and 4:00 p.m., Monday through Thursday, excluding holidays from:

[23] A copy of the EPA's August 10, 2018 letter offering government-to-government consultation to each of the tribes is included in the administrative record for this action.

Donald Dahl (OEP 05-2)
U.S. Environmental Protection Agency
5 Post Office Square - Suite 100
Boston MA 02109 - 3912
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All supporting information regarding this permitting action can also be found at www.regulations.gov Docket ID. EPA-R01-OAR-2019-0073