

August 5, 2021

Ms. Undine Kipka
Environmental Engineer
U.S. Environmental Protection Agency - Region 1
5 Post Office Square (mail code 05-2)
Boston, MA 02109-3912

Subject: Draft Outer Continental Shelf (OCS) Air Permit for South Fork Wind (OCS-R1-04)

Dear Ms. Kipka:

South Fork Wind, LLC (SFW) respectfully submits the attached comments on the Draft OCS Air Permit (OCS-R1-04). SFW's comments are organized in a spreadsheet with reference columns providing the permit page number and condition in which the comment is regarding.

Thank you for your consideration. Please contact me if you have any questions or would like additional information.

Sincerely,



Melanie Gearon
Authorized Person
Ørsted Wind Power North America LLC,
Agent for South Fork Wind, LLC

Rob Mastria
Authorized Person
Ørsted Wind Power North America LLC,
Agent for South Fork Wind, LLC

CC:

Patrick Bird, U.S. EPA
Rob Soden, Environmental Manager, Ørsted
Brandi Carrier, Project Coordinator, BOEM
Joy Prescott, Project Manager, Stantec

Enclosures:

Attachment 1 – Comments on Draft OCS Air Permit (OCS-R1-04) for South Fork Wind

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Comment #	Page	Condition	Comment
1	3	N/A	List of Air Emission Units describes the current known types and names of vessels and activities at the time of this draft permit. South Fork Wind recommends that clarifying language be added indicating that this list does not preclude or prevent the use of vessels or equipment with other names so long as the emissions from those units are consistent with the emissions calculations supporting the South Fork Wind permit application and are compliant with applicable emission limits related to vessels and equipment contained within the permit.
2	5	N/A	Definitions – The term “engine” is broadly defined as diesel-fired compression ignition engine, marine engine and diesel-fired generating sets. However, the permit conditions only refer to marine engines. This may create some unnecessary confusion if Orsted uses an engine other than a “marine” engine. To address this issue, South Fork Wind suggests that the permit be clarified to confirm that the permit allows the use of engines other than those called “marine” engines so long as "non-marine" engines are compliant with applicable emission limits related to vessels and equipment contained within the permit. This clarification can be provided by adding a definition for marine engine in comment no 4 below.
3	Pages 3-4	Section II	<p>The list of air emission sources in Section II of the draft permit only makes a general reference to "cable installation" without describing the various types of cable laying vessels used for laying and burying cables in the seafloor, (specifically, vessels using pull-ahead anchors and vessels using a dynamic positioning system). Given that these types of vessels are only considered in determining the potential emissions of the OCS source and not themselves OCS sources, SFW suggests that the final permit provide greater specificity as to the types of vessels are used for cable installation. In particular, the table in Section II should be revised as follows:</p> <p>"Cable installation by vessels using pull-ahead anchors dynamic positioning systems"</p>
4	5	N/A	<p>1. Add definition of marine engines to definition list: (as per 40 CFR 1042.901 “definitions”)</p> <p>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.</p> <p>There are two kinds of marine engines:</p> <p>(1) Propulsion marine engine means a marine engine that moves a vessel through the water or directs the vessel's movement.</p> <p>(2) Auxiliary marine engine means a marine engine not used for propulsion.</p>

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5	8	IV.B.2	This section is applicable to diesel-fired engines on the WTGs and OSS, however, the regulations cited (1042.101(a) for “new marine compression-ignition engines”) are only for marine engines that are 600 kW or larger. The proposed emergency engines for the WTG or OSS are 268 bhp which is equivalent to 200 kW. Please reference that Tier 3 standards apply for engines < 600 kW.
6	8	IV.B.2	The condition indicates an Engine’s design displacement in kilowatts per liter (kW/l). Engine displacement is a measure of cylinder volume swept by all pistons of an engine and is not a function of the engines output. Recommend revising this condition as follows: “...Engine’s design displacement (kW/l). [Prevention...”
7	8	IV.B.3	Engines on the WTGs and OSS are limited to 200 hr/yr. Actual emergency operation of emergency engines must be unlimited to allow proper health and safety response to emergency situations. For example, 40 CFR 60.4211(f)(1) states “there is no time limit on the use of emergency stationary ICE in emergency situations.” This approach also is consistent with 40 CFR 63.6640(f)(1) with regard to limiting hazardous air pollutants from stationary internal combustion engines. The only time limits imposed on emergency RICE in 40 CFR 63.6640(f) are for readiness checks, maintenance and other nonemergency operations. South Fork requests that the conditions in the permit applicable to emergency engines are consistent with how emergency engines are treated in these programs, which are part of Condition VI.B.1. Please add a citation to 40 CFR 60.4211(f)(1) - stating “there is no time limit on the use of emergency stationary ICE in emergency situations.”
8	8	IV.B.3	The condition limits the use of hours for engines on the Wind Turbine Generators (WTG) and Offshore Substation (OSS) up to 200 hours a year. As written, the condition is unclear regarding the application of the limit to the entire group of diesel-fired engines or each diesel-fired engine. According to Page 38 of the “Fact Sheet OCS-R1-04”, a 200 hour per year operation limitation was selected as Best Available Control Technology (BACT) for engines defined as emergency on the WTG and OSS. In addition to the recommendation above SFW suggests revising this condition for clarity as follows: “Engine shall be limited to operating up to 200 hours a year per engine . [PSD]”
9	9	IV.C.3	SFW requests that the word “propulsion” be added before the word “engines” in the following clause “... ensure that all category 1 and 2 engines...”

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10	9	IV.C.3	Formatting: The condition includes a grammatical error use of commas and a period. Recommend revising this condition as follows: “...in subparagraph 3.a or 3.b 7 , below 7 , is met...”
11		IV.C.3.a IV.C.4.a IV.C.5.a	SFW requests that the following clarification is included in the identified conditions. a. A vessel with a higher Tier main engine (i.e., Tier 4) is not available within two hours of when the vessel commences operation as an OCS source ; b. The total emissions associated with the use of a vessel with the higher Tier main engine(s) would be greater than the total emissions associated with the use of the vessel with the next lower Tier engine(s). For purposes of this subparagraph, when determining the total emissions associated with the use of a vessel with a particular engine, the Permittee may 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.
12	11	IV.C.4	SFW requests the word “propulsion” be added before the word “engines” in the following clause “... ensure that all category 1 and 2 engines...”
13	12	IV.A.1	Orsted is interested in developing other possible regulatory mechanisms that could be used to generate discrete emission reduction credits (DERCs) that satisfy the requirements of the Clean Air Act (specifically, achieving creditable emissions reductions that are quantifiable, permanent, surplus, and enforceable). To ensure that SFW can meet its DERC requirements through such alternative regulatory mechanism, a new subparagraph d. should be added condition V.A.1 of the draft permit: "d. Any other regulatory mechanism that the permitting authority determines meets that requirements of the Clean Air Act for generating creditable emission reductions that can be used for meeting the reasonable further progress goals under the State Implementation Plan."
14	12	V.A.2	SFW suggests revising the following clause: “... the Permittee shall start recording on a daily basis for each and every day, the total amount (in tons) of NOx emissions emitted from ...) to read “...the Permittee shall start recording on a daily basis for each and every day, the hours of use for each engine as follows:” Recording usage of engines is needed on a daily basis and NOx emissions can be calculated on a weekly basis as DERCs only have to be purchased on a quarterly basis.

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15	14	V.B.1	For the same reasons noted above in comment 13 regarding the generation of DERs under condition IV.A.1, Orsted is recommending that the language in condition V.B.2 be revised to allow for the use of alternative regulatory mechanisms to generate continuous emission reduction credits (CERCs) that satisfy the requirements of the Clean Air Act (specifically, achieving creditable emissions reductions that are quantifiable, permanent, surplus, and enforceable). In particular, a new subparagraph d. should be added to condition V.B.1 of the draft permit that provides: "d. Any other regulatory mechanism that the permitting authority determines meets that requirements of the Clean Air Act for generating creditable emission reductions that can be used for meeting the reasonable further progress goals under the State Implementation Plan."
16	15	VII.1	The testing requirement, "once per operating day" to monitor for opacity for 30 minutes is excessive. Please revise to read: "once per 10 operating days".
17	6	N/A	Formatting: #22, definition for "primary crew transfer vessels" is out of order alphabetically, should go after "O word" definitions.
18	11	IV.C.7	Formatting: Typographical error on "Condition IV.D.6" in the first sentence, change to "Condition IV.C.6".
19	N/A	N/A	SFW agrees with EPA's determination that pull-ahead anchor CLVs are not OCS sources, we continue to believe that these vessels are also not OCS sources because they do not attach to the seabed for the reasons explained in Orsted's September 30 2020 memorandum.