REGION 1
BOSTON, MA 02109

October 3, 2023

SENT VIA ELECTRONIC MAIL

Ms. Jennifer Flood
SouthCoast Wind Energy, LLC
101 Federal St., Suite 1900
Boston, MA 02110
Jennifer.flood@southcoastwind.com

SUBJECT: SouthCoast Wind Energy, LLC Outer Continental Shelf (OCS) Air Permit Application – Request for Additional Information

Dear Ms. Flood,

U.S. Environmental Protection Agency Region 1 (EPA) has reviewed your OCS air permit application for SouthCoast Wind Energy, LLC that was received by the EPA on November 23, 2022, including supporting documentation, and determined complete by the EPA on April 7, 2023. Upon further review, we request the following clarifying information from you in order to continue processing your application and make permit decisions. The regulations at 40 C.F.R. § 55.6(a)(1)(i) provide for the applicant to submit all information necessary to perform any analysis or make any determination under § 55.6.

1) According to the application, the BOEM Emission Estimation Tool was used to estimate the potential emissions of the project for purposes of obtaining a preconstruction permit under 40 C.F.R. § 52.21. BOEM developed the Tool[1] specifically for purposes of preparing Environmental Assessments as part of National Environmental Policy Act (NEPA) requirements. For Clean Air Act (CAA) permitting purposes, BOEM has verbalized caution with using previous versions of the Tool and stated that using previous versions could result in erroneous estimates. BOEM will not be providing continued support any longer for the Tool and the previous version does not reflect current emissions guidance.

[1] To calculate emissions from marine vessels, the Tool requires project specific data including vessel count, propulsion hours per vessel, and auxiliary hours per vessel. In the case of SouthCoast, default values for distance, speed, total number of trips, engine kilowatt (kW) ratings, load factors, and weighted emission factors based on vessel types appear to be used.

EPA released new emissions guidance for marine vessels in May 2022. Since the new guidance resulted in changes to certain assumptions for emission calculations and corrected errors that are not considered in the BOEM tool, it has the potential to change the final emissions estimates (in tons per year (TPY)) from this source. Applicants have claimed it necessary to utilize the default factors when specific project information on the marine vessels is unavailable at the time of the application. We are requesting SouthCoast to either: a) revise the emissions estimates to be consistent with the US EPA Port Emission Inventory Guidance (5/2022); b) confirm the use and location of the appropriate emission factors within the existing spreadsheet; or c) identify the emission factors used with reference to each vessel within a new spreadsheet, as discussed in a meeting between EPA and SouthCoast on September 21, 2023.

2) EPA cannot determine Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) for OCS sources without more specific project information. Please provide a formal response to the items listed below (I-II).

   I. Please provide a list of the activities anticipated with construction and operation (i.e., monopile installation activity, etc.), the types of vessels associated with each activity, and whether SouthCoast anticipates these vessel types to become OCS sources, consistent with the definition of OCS source at 40 C.F.R. § 55.2 (e.g., yes, no, or maybe).

   II. For all OCS source vessels, please provide the following information:

      a. Please identify if the vessel has been contracted (e.g., yes, no, pending)

      b. Per 40 C.F.R. § 52.21(b)(12), in no event, shall application of BACT result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 C.F.R. Parts 60, 61, or 63. For EPA to determine appropriate BACT limits, please identify which specific OCS sources are potentially subject to 40 C.F.R. Part 60 Subpart IIII.

      c. For all marine vessels that meet the definition of an OCS source[2], which are subject to BACT and LAER, please revise the emissions submittal to reflect appropriate BACT and/or LAER short term rates.

3) For EPA to make a greenhouse gas (GHG) BACT determination on the offshore service platform (OSP) switchgears, additional information is needed. In the supplemental information provided by SouthCoast on January 24, 2023, the final design of the OSP switchgear was stated to be unknown (i.e., voltage and current type (direct current (DC) or alternating current (AC))). At that time, SouthCoast indicated that SF_6-free switchgear

[2] CAA section 328(a)(4)(C) and 40 C.F.R. Part 55.2.

options were available for the medium and high voltage AC applications. However, for DC applications, SF_6-free equipment was stated to be unavailable. Please clarify the final design of the OSP switchgears and revise the GHG BACT determination accordingly with the updated information requested below.

I. If the final design is determined to use DC equipment, please provide a statement on the existing market conditions related to whether SF_6-free switchgears for the OSP are available. If available, clarify whether certain specific equipment is feasible versus infeasibility from a technical perspective for use on the OSP. If available, and not deemed technically infeasibility, SouthCoast must consider this technology as technically feasible and include it as an option in Step 2 of the BACT analysis.

II. If the final design is determined to use AC equipment, SouthCoast will need to evaluate the availability and applicability of SF_6-free OSP switchgears. If available, and not deemed technically infeasibility, SouthCoast must consider this technology as technically feasible and include it as an option in Step 2 of the BACT analysis.

III. If the SF_6-free OSP switchgears are available and technically feasible (and thus not eliminated in Step 2), the permittee will need to proceed with addressing this control technology in Step 3-5 of the BACT analysis. Since the SF_6-free switchgear control technology would be considered the most efficient control option in the ranking (Step 3), SouthCoast would only need to provide an evaluation on economic feasibility[3] to satisfy Step 4. If a control option is determined to be economically feasible, without adverse energy or environmental impacts, it is not necessary to evaluate the remaining options (e.g., such as if alternative gas options exist) with lower control efficiencies.

The EPA is requesting that SouthCoast submit the information requested by October 30, 2023. Please notify Andre Turner if a complete response is not possible by this date.

This request does not affect the completeness of your application and the EPA will continue to review your application to the extent possible until the above information is received.

If you have any questions, please contact Andre Turner at 617-918-1216 or turner.andre@epa.gov

Sincerely,

PATRICK BIRD Digitally signed by PATRICK BIRD
Date: 2023.10.03 15:57:51 -04'00'

Patrick Bird, Manager
Air Permits, Toxics, & Indoor Programs Branch

[3] In general, the economic evaluation centers on the cost effectiveness of the control option.