From:	"Mike Feinblatt" <mfeinblatt@essgroup.com>
To:	Brendan Mccahill/R1/USEPA/US@EPA
Cc:	"Rachel Pachter" <rpachter@emienergy.com>, "Craig Olmsted" <colmsted@emienergy.com>, "Chris Rein" <crei <torr@essgroup.com>
Date:	07/15/2010 12:44 PM
Subject:	Cape Wind Draft OCS Permit

Brendan,

Attached please find a comment letter from ESS Group, Inc. (ESS) on behalf of Cape Wind Associates on the Draft OCS Permit for the Cape Wind Energy Project. A hardcopy of this letter has also been sent to your attention by certified mail. If you have any questions regarding this comment letter, do not hesitate to contact me.

Thank you.

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July 15, 2010

Brendan McCahill
Environmental Engineer
Air Permits, Toxics and Indoor Air Unit
U.S. Environmental Protection Agency – Region 1
5 Post Office Square
Suite 100, Attn: OEP-5-2
Boston, Massachusetts 02109-3912

Re: Draft OCS Air Permit Number OCS-R1-01
Cape Wind Energy Project
ESS Project No. E159-504.1

Dear Mr. McCahill:

Cape Wind Associates, LLC (Cape Wind) has reviewed the Draft Outer Continental Shelf (OCS) Air Permit and Fact Sheet, which were released by the United States Environmental Protection Agency (USEPA) for public comment on June 8, 2010, for its proposed Offshore Renewable Wind Energy Project on Horseshoe Shoal in Nantucket Sound, Massachusetts. Cape Wind notes for the record that there is a typographical error on Page 6 of the Fact Sheet stating that the Cape Wind project is located approximately 3.5 miles off the Massachusetts coast. The closest wind turbine of the project will be located approximately 4.7 miles off the Massachusetts coast.

The following are Cape Wind's comments on the Draft OCS Permit:

Page 4, Section II

Draft Permit: "*Phase 1 End Date* means the last day of the calendar month that is 24 months after the Phase 1 start date, unless extended by EPA as described in Section XI.A."

Proposal: "*Phase 1 End Date* means the last day of the calendar month that is ~~24~~ 36 months after the Phase 1 start date, unless extended by EPA as described in Section XI.A."

The U.S. Minerals Management Service (MMS) released its Record of Decision (ROD) for the Project on April 28, 2010. The ROD contained expanded mitigation and monitoring requirements for the Project's preconstruction activities. The expanded requirements included in the MMS ROD will result in an increase in vessel transit activities during the Project's preconstruction G&G surveys. The increases in preconstruction activities and emissions were summarized in Cape Wind's June 4, 2010 OCS Permit Application Revision letter.

In the June 4, 2010 letter, Cape Wind requested that the Phase 1 End Date in the OCS Permit be defined as the last day of the calendar month that is 36 months after the Phase 1 Start Date. While Cape Wind anticipates that

construction will be completed within 24 months, the additional preconstruction survey requirements contained in the ROD could extend the construction period if there are unanticipated seasonal delays in preconstruction and construction activities. Cape Wind's estimates of equipment usage and emissions during Phase 1 are unchanged from the levels included in the June 4, 2010 letter as a result of this request. An extension of the Phase 1 End Date will give Cape Wind the necessary flexibility to manage seasonal delays in preconstruction and construction activities within the effective dates of the OCS Permit.

Page 5, Section III.A

Draft Permit: "The owner/operator shall ensure that any engine (including any vessel propulsion engine) operating on an OCS source shall have a maximum displacement of less than 10 liters per cylinder."

Proposal: Cape Wind requests that this provision be removed from the OCS Permit.

There is no regulatory basis for this provision, and its removal from the OCS Permit will not affect Cape Wind's compliance with all applicable requirements or be less protective of the environment. The emission standards contained in 40 CFR 60, Subpart IIII, Tables 1 and 2, apply to stationary compression ignition internal combustion engines with a displacement less than 10 liters per cylinder. However, the permit requires that the engines used by Cape Wind comply with the stricter EPA emission standards for new and in-use nonroad compression-ignition engines from 40 CFR 89.112. These emission standards are not limited to engines with a displacement less than 10 liters per cylinder. Furthermore, neither the Subpart IIII nor the 40 CFR 89 emission standards would apply to the vessel propulsion engines used by Cape Wind, as the vessel propulsion engines are not subject to either regulation. This provision puts an unnecessary limitation on the engines and vessels available for use on the project. Cape Wind will use engines (excluding vessel propulsion engines) which meet the emission standards in the permit, regardless of their displacement.

Page 5, Sections III.B & C

Draft Permit: "The owner/operator shall ensure that any engine (including any vessel propulsion engine) with a maximum power output at or below 560 kilowatts (kW) on any OCS source has been certified by the manufacturer(s) to meet or surpass the following emission standards required for 40 C.F.R. Part 89, Tier 3 engines:"

"The owner/operator shall ensure that any engine (including any vessel propulsion engine) with a maximum power output greater than 560 kilowatts

(kW) on any OCS source has been certified by the manufacturer(s) to meet or surpass the following emission standards required for 40 C.F.R. Part 89, Tier 2 engines:"

Proposal: "The owner/operator shall ensure that any engine ~~(including any vessel propulsion engine)~~ with a maximum power output at or below 560 kilowatts (kW) on any OCS source has been certified by the manufacturer(s) to meet or surpass the following emission standards required for 40 C.F.R. Part 89, Tier 3 engines:"

"The owner/operator shall ensure that any engine ~~(including any vessel propulsion engine)~~ with a maximum power output greater than 560 kilowatts (kW) on any OCS source has been certified by the manufacturer(s) to meet or surpass the following emission standards required for 40 C.F.R. Part 89, Tier 2 engines:"

According to the permit, a vessel or equipment on a vessel becomes an OCS source each time the vessel completes an OCS Attachment, which is defined as the moment when at least three legs from a Jack-up Unit have attached to the seafloor. As stated in Cape Wind's April 23, 2010 information request response letter to EPA, the vessel propulsion engines will not be in operation at any time during an OCS activity. The vessel propulsion engines will therefore not be OCS sources and will not be subject to the emission standards listed in the permit. Furthermore, the emission standards listed in the permit apply to nonroad engines, and do not apply to engines used solely for propulsion, such as marine vessel engines. The EPA regulates the emissions from marine compression-ignition engines in 40 CFR Part 94. The emission standards listed in the permit do not apply to the propulsion engines for the vessels to be used for the Cape Wind project, whether they are engaged in an OCS activity or not.

Page 8, Section VIII.B

Draft Permit: "The owner/operator shall calculate and record the OCS Source Emissions, OCS Vessel Emissions, and Total OCS Emissions of NOx (monthly and 12-month rolling average). These calculations shall assume that each engine operates at maximum power at all times, and that each engine's NOx emission rate is equal to its certified NOx + NHMC emission rate, as follows:"

OCS Vessel Transit Emissions of NOx = Ht * P * NER

Ht = Hours of operation in transit in the Project Area (from Section V.B.2)
P = Maximum power of propulsion engine
NER = NMHC + NOx emission rate for propulsion engine

"The owner/operator shall obtain the power output and emission rates for vessel propulsion engines from the June 4, 2010 letter from the ESS Group, Inc. to David Conroy entitled "Outer Continental Shelf Air Regulation Permit Application: Cape Wind Energy Project: Preconstruction Emissions Inside 25 Miles.""

Proposal: "The owner/operator shall calculate and record the OCS Source Emissions, OCS Vessel Emissions, and Total OCS Emissions of NOx (monthly and 12-month rolling average). These calculations shall assume that each OCS source engine operates at maximum power at all times, and that each OCS source engine's NOx emission rate is equal to its certified NOx + NHMC emission rate as follows:"

[OCS Source Calculation]

"OCS Vessel Emissions will be calculated for each vessel based on the hours of operation in transit in the Project area, the assumed engine load factor, as prescribed by the EPA, and the NOx emission rate for the vessel propulsion engine as follows:"

OCS Vessel Transit Emissions of NOx = Ht * ~~P~~ LF * NER

Ht = Hours of operation in transit in the Project Area (from Section V.B.2)
~~P = Maximum power of propulsion engine~~
LF = assumed engine load factor
NER = ~~NMHC +~~ NOx emission rate for propulsion engine

"The owner/operator shall obtain the ~~power output~~ load factors and emission rates for vessel propulsion engines from the ~~June 4, 2010~~ September 23, 2009 letter from the ESS Group, Inc. to David Conroy entitled "Revised Emissions Estimates: Outer Continental Shelf Air Regulation Permit Application: Cape Wind Energy Project~~: Preconstruction Emissions Inside 25 Miles.~~""

At the direction of MMS and EPA, Cape Wind revised its vessel emissions estimates during both Phase 1 and Phase 2 in July of 2009 to reflect the most up to date EPA guidance for such estimations. In a letter dated September 23, 2009, the revised vessel emissions estimates and methodology used for the project were submitted to EPA. Specifically, the revised emissions estimates were made in accordance with the EPA's "Current Methodologies in Preparing Mobile Source Port-Related Emissions Inventories – Final Report", dated April 2009. At the direction of the EPA, the revised emissions estimates for the project were not made on the assumption that the vessel propulsion engines were operating at maximum power, rather they were made using load factors from the EPA Port Study for different vessel categories and engine sizes.

If the vessel emissions for the project are calculated assuming maximum power output and not using load factors, the emissions will be calculated in a manner which is inconsistent with how EPA has directed Cape Wind to estimate these emissions for the OCS permit application. The vessel emissions would be substantially overestimated, and would require additional project offsets for emissions which will not occur. The emission rates and calculation methodologies from the September 23, 2009 submittal to EPA should be used to determine the vessels emissions from the project.

Page 11, Section XI.C.3

Draft Permit: "If, pursuant to 310 C.M.R. 8.05, the Massachusetts Department of Environmental Protection declares an Air Pollution Episode Alert, Air Pollution Episode Warning, or Air Pollution Episode Emergency for particulate matter and/or sulfur dioxide, then the owner/operator shall stop all construction activities that generate air pollutants until the Department terminates the Alert, Warning, or Emergency."

Proposal: Cape Wind requests that this provision be removed from the OCS Permit.

This provision, which is taken directly from 310 CMR 8.05, should not be applied to the project. The air dispersion modeling conducted for the project for the conformity analysis demonstrated that the short term particulate matter and sulfur dioxide ambient air impacts resulting from the project's OCS emissions sources will be localized primarily within the project area. The project, due to its location offshore, and its low levels of particulate matter and sulfur dioxide emissions, based on the results of the modeling, will not have an adverse affect on land based Air Pollution Episode ambient air concentration threshold exceedances.

Furthermore, 310 CMR 8.05 does not require stationary source activities to be shut down during Air Pollution Episodes, only construction activities. The project's OCS emissions sources, through the OCS air regulations, are being regulated by the EPA as stationary sources. Cape Wind is implementing Best Available Control Technology (BACT) for its OCS sources, which ensures that the particulate matter and sulfur dioxide emissions from the project are being controlled to the greatest extent practicable. Land based construction activities and their associated emission sources are not subject to the BACT requirement.

Due to its location offshore, localized impacts, low particulate matter and sulfur dioxide emissions rates, and BACT implementation, the Cape Wind OCS source activities should not be regulated in the same manner as land based construction projects, and should therefore not be subject to the shutdown requirements of 310 CMR 8.05.

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Cape Wind requests that EPA make each of the changes suggested above prior to finalizing the OCS Permit for the project. If you have any questions regarding this comment letter, do not hesitate to call me at (781) 489-1149.

Sincerely,

ESS GROUP, INC.

Michael E. Feinblatt
Project Manager

C: Craig Olmsted, Cape Wind Associates
Rachel Pachter, Cape Wind Associates
Chris Rein, ESS
Terry Orr, ESS

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