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OFFICE OF THE
REGIONAL ADMINISTRATOR

April 21, 2008

James F. Bennett
Chief, Branch of Environmental Assessment
Minerals Management Service
U.S. Department of the Interior
381 Elden Street
Mail Stop 4042
Herndon, VA 20170

Re: Cape Wind Energy Project Draft Environmental Impact Statement, January 2008 (CEQ #20080019)

Dear Mr. Bennett:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, we have reviewed the Draft Environmental Impact Statement (DEIS) for the Cape Wind Energy project in Nantucket Sound off the coast of Massachusetts.

The DEIS details Cape Wind Associates, LLC's proposal to install a wind-powered generating facility in the Horseshoe Shoal region of Nantucket Sound consisting of 130 wind turbine generators (WTGs), an electrical service platform (ESP), and a 12.5 mile long submarine transmission cable system from the ESP to landfall in Yarmouth, Massachusetts. Each WTG will be 440 feet tall at its highest point and the steel framed ESP will have a footprint of approximately 100 feet by 200 feet and will be constructed approximately 39 feet above the water surface. The wind turbines and ESP will occupy 25 square miles of Nantucket Sound in an area known as Horseshoe Shoal and will be approximately 5.2 miles from the closest point of land--Point Gammon on Cape Cod. The bathymetry of Nantucket Sound is irregular with charted water depths ranging between one and 70 feet. According to the DEIS the project will be capable of producing an average generation capacity of approximately 182 megawatts (MW).

EPA has been involved in the review of the Cape Wind project since 2001 when the U.S. Army Corps of Engineers served as the lead federal agency with the responsibility for preparation of the EIS for the project. The passage of the Energy Policy Act of 2005 amended the Outer Continental Shelf Lands Act and established the Department of the Interior as the lead agency (through the Minerals Management Service (MMS)) for the review (under NEPA) of renewable energy sources. The purpose of the proposed project, as described in the DEIS, is to provide an alternative energy facility using wind resources

off the coast of New England to make a substantial contribution to enhancing the region's electrical reliability and achieving renewable energy goals under Massachusetts and regional renewable portfolio standards (RPS).

The focus of the DEIS on both the Massachusetts and regional RPS goals reflects changes that have occurred since the publication of the previous DEIS by the Corps. Namely, all six New England states now have enacted RPS programs to promote the development of renewable energy sources. Near-term projections by the Massachusetts Division of Energy Resources and others predict that there will be available supply to meet the RPS requirements in Massachusetts in 2008. However, in later years as mandated demand for renewables from other states in the region accelerates at an increasing rate, projections by state and regional energy officials indicate that the region will face shortages of renewable energy supplies. According to ISO New England's Regional System Plan for 2007, in order to meet the projected growth in RPSs of the New England states, the region needs significantly more renewable electricity projects than those which have currently applied for interconnection to the power grid. Specifically, in 2016 over 18% of New England's electricity supply will be required to come from a combination of renewable and energy efficiency resources. To date, if all projects that have applied for interconnection with ISO New England, including Cape Wind, are permitted and built, the region would be at about 14.5%.

There are a number of state policies and requirements in New England and the northeast that underscore the need for renewable energy. First, through their 2001 Climate Change Action Plan Agreement, the New England Governors and Eastern Canadian Premiers have set goals for reducing greenhouse gas emissions. Specifically, these goals call for reductions to be made to 1990 levels by 2010, and to 10% below 1990 levels by 2020. In the long-term, overall reductions of 75% to 80% below 2003 levels may be required.

In addition to the regional plan, Governors and state legislators have adopted state specific goals and timelines for reducing greenhouse gas emissions through a combination of energy efficiency, renewable energy, and cap and trade programs. Also, both the Clean Air Interstate Rule (CAIR) and the Regional Greenhouse Gas Initiative (RGGI) will be imposing regulatory schemes to limit NO_x and CO_2 emissions, respectively. Given these emission caps, new supplies of clean energy are critical for meeting the region's increasing demand for electricity. In addition, in March 2008, EPA issued a revision to the 8-hour ozone standard, creating a further need on the part of the Northeast states to reduce NOx emissions which contribute to the formation of ozone. These federal and state policies are combining to push further development of non-emitting electricity generation resources that either produce zero emissions or considerably lower emissions than the current fleet of power plants.

The Cape Wind project could make a substantial contribution to the significant need for additional renewable energy sources in the region. The massive scale of the project underscores the importance of a comprehensive consideration of alternatives, impacts and appropriate mitigation in the EIS. As you know, EPA submitted scoping comments asking MMS to incorporate and fully consider our previous comments on the Corps 2005

DEIS as well as the original scoping comments and comments we offered on the scope of work for the Corps EIS. Our comments on the Corps DEIS noted that it did not provide enough information to fully characterize baseline environmental conditions and environmental impacts of the proposed project, and did not adequately consider alternatives to avoid or minimize impacts. We reviewed the current DEIS with those comments in mind and continue to believe that it is critical for MMS to develop that information to support a decision of whether the project is environmentally acceptable and in the public interest. While the DEIS improves upon the Corps' DEIS, we believe additional work is needed, in close coordination with the cooperating agencies, between now and the issuance of the FEIS. Our detailed comments on the DEIS are provided in the attachment to this letter.

Based on our review of the DEIS, and for the reasons discussed in the attachment, EPA has rated this DEIS as "EC-2, Environmental Concerns—Insufficient Information" in accordance with EPA's national rating system, a description of which is attached to this letter. As required by the Council on Environmental Quality's NEPA regulations (40 CFR 1501.6) MMS should respond to specific comments and use proposals provided by EPA and other agencies with jurisdiction by law or special expertise. We strongly encourage MMS to work more closely with EPA and other agencies during the development of the FEIS. Please feel free to contact me or Timothy Timmermann of the Office of Environmental Review at 617/918-1025 if you wish to discuss these comments further.

Sincerely,

Robert W. Varney
Regional Administrator

Enclosure

cc:

Governor Deval Patrick
Senator Edward Kennedy
Senator John Kerry
Representative William Delahunt
Michael Bartlett, United States Fish and Wildlife Service
Patricia Kurkul, National Marine Fisheries Service-Northeast Region
Paul Niedzwiecki, Cape Cod Commission
Jim Gordon, Cape Wind

Summary of Rating Definitions and Follow-up Action

Environmental Impact of the Action

LO--Lack of Objections
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC--Environmental Concerns
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO--Environmental Objections
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU--Environmentally Unsatisfactory
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1--Adequate
EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2--Insufficient Information
The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3--Inadequate
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

Additional Detailed Comments
Minerals Management Service DEIS for the Cape Wind Energy Project

Alternatives

EPA's previous comments on the Corps' EIS as well as during scoping of this EIS recommended the consideration and analysis of smaller scale alternatives and a phased project alternative as it was not clear from the analysis provided at that time whether smaller projects could achieve the project purpose while also potentially reducing the overall impact of the project. While a smaller scale project would not provide as much renewable energy as the Cape Wind proposal, it could still contribute toward achieving the region's RPS requirements and thus is reasonable to consider in the analysis comparing the energy and environmental tradeoffs of alternatives. The MMS DEIS considers both a smaller scale alternative (at one half the size of the Cape Wind proposal) and a two phase alternative project, both of which would be constructed in the Horseshoe Shoal region of Nantucket Sound. Based on our review of the DEIS, it is not clear how the scale of the smaller Project was established and whether it was based on economic considerations (for example where up front project capital costs were expected to equal project revenues) or other factors. The FEIS should address this issue and whether this or another intermediate size alternative would perform substantially better economically or environmentally. We note that discussions about the economic viability of the smaller scale project are complex given statements in the DEIS that the proposed project and other sites are not economically viable at this point in time. In addition, the alternatives analysis should discuss the current research into and development of deepwater offshore wind technologies in light of the recent proposal by Blue H Technologies BV.

Establishment of Baseline Conditions and Projections of Project Impacts

We continue to believe that it is critical for project impacts to be compared to a comprehensive baseline. With such a baseline, the impacts of the project alternatives can be measured and mitigation and monitoring protocols developed. During scoping and in our previous comments on the Corps DEIS in 2005, EPA specifically requested that the DEIS clearly indicate what information was requested by expert agencies to establish baseline conditions, and, if those agencies' advice was not followed, explain the basis for such a decision. We continue to believe it is essential for MMS to directly address comments from federal agencies with expertise and jurisdiction over various aspects of the project, specifically the U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration as required in the Council on Environmental Quality's (CEQ's) NEPA regulations (see 40 CFR 1501.6(a)(2) and 1502.9(a) and (b)). This is especially important on the critical issue of impacts to avian species.

The DEIS indicates that all previous comments on the Corps DEIS were incorporated as scoping comments. Lacking a specific comment/response summary it is difficult to determine how fully the agency/expert advice was incorporated into the analysis. It would have been helpful if the DEIS had included a comment response section that specifically addressed relative comments already on the record in response to the Corps

EIS for the project. The FEIS should specifically reference the comment or technical advice received in response to the DEIS and provide information to demonstrate how the comment/concern was addressed.

Marine Issues

Entrainment losses

The DEIS acknowledges that there will be entrainment mortality to ichthyoplankton from jetting operations and from the normal operation of vessels associated with the construction and maintenance of this project. The DEIS dismisses these losses as insignificant without any quantification of the water use or entrainment losses. At a minimum, the FEIS should provide an estimate of water volumes entrained by the jetting operations and vessels associated with the project. Ideally it would use these volume estimates in conjunction with site-specific ichthyoplankton data to estimate the losses of fish eggs and larvae.

Pollutant Discharges

EPA notes that a Clean Water Act National Pollutant Discharge Elimination System (NPDES) permit may be needed to authorize any discharges (including thermal discharges) and cooling water withdrawals by the jack-up construction barges when they are in jack-up mode. EPA looks forward to discussing this with MMS and the project proponent in the coming weeks. The FEIS should reflect the results of this coordination and should also fully characterize the operation of the jack-up construction barges. This characterization should explain how the equipment works in its different modes of operation, including a description of the type and amount of any pollutants that will be discharged or otherwise released to the water by the barges, and a description of the amount of water that the barges will withdraw from the ambient environment, if any, and an explanation of the purpose of any such water withdrawals.

Please also note that in section 5.1.1.1.2 one portion of the text appears to need editing. The last line in that section reads, ". . . avoid only deck drainage discharge . . .," but probably should say ". . . avoid any deck drainage discharge . . ."

Oil Spill Management

Under a Memorandum of Understanding cited in 40 CFR Part 112, Appendix B, the jurisdiction for oil spill incidents seaward of the coastline lies with the Department of the Interior. However, all agencies of the United States, including EPA, have a common interest in protecting these waters and shores. Therefore we offer the following suggestions and observations relative to oil spill management issues for the project.

The Department of Interior MMS regulations at 30 CFR 254, "Oil Spill Response Requirement for Facilities Located Seaward of the Coastline" require that an Oil Spill Response Plan be developed, and that the plan be submitted to MMS for approval prior to the facility beginning operation. The DEIS refers to these regulations and also states that a plan will be developed, but no plan was included in the DEIS.

In December 2005, a *Draft Oil Spill Response Plan* was prepared for the Corps' EIS. That plan is available on-line.[1] The December 2005 *Draft Oil Spill Response Plan* appears to closely follow the prescribed MMS format and appears to be adequately developed, given the status of the project at that time. We recommend that the FEIS contain a copy of the Oil Spill Response Plan for review and comment. Based on our review of the December 2005 plan we recommend that plan provide the following additional information:

- Information on the specific types and quantities petroleum products that will be used and stored at the various structures of the facility. This information is important because different products have different chemical and physical characteristics that may impact cleanup strategies and risk to the environment.

- A description of the specific strategies that will be used to respond to a spill into water. For example, will oil boom (containment or deflection) be used? If so, how many feet of boom are required to contain the worst case spill? Also, where will boom be deployed and how will it be anchored? Where will boom be stored and staged and how will it be deployed? If boom will not be used, what other mitigations are proposed?

- What are the sensitive areas to be protected?

- How are the sensitive areas prioritized? The FEIS should describe the decision making process used in determining these priorities.

Scour Control

EPA recommends the use of scour control mats over rock armoring around the WTG monopiles. The scour control mats have a significantly smaller footprint of direct impact and they more closely match the existing benthic conditions at each location. The FEIS should provide additional information on the long term durability of the scour control mats and discuss anticipated replacement/maintenance.

Fish Landscape Ecology

The DEIS concludes that the proposed WTGs would be placed too far apart to have anything more than localized effects on fish aggregation (DEIS page 5-149). The DEIS draws this conclusion based on a single citation from a commercial website. That website describes in very general terms artificial reef placement in the Gulf of Mexico and Florida, but it does not quantitatively analyze the effect of reef design and spacing on fish aggregation. With the implementation of marine reserves, there have been numerous scientific peer-reviewed papers published on the landscape ecology of marine fish. One key consideration is adjacent habitat types that may complement or serve as a conduit for species between reefs. Many papers have shown that adjacent seagrass habitat has a significant positive effect on fish abundance on reefs. As evidenced by Figure 4.2.2-1, Horseshoe Shoal has a diversity of benthic habitats onto which the turbines with associated scour control will be placed. As a result there will likely be some level of habitat connectivity between naturally occurring benthic habitats and the WTGs. In

[1] http://www.capewind.org/downloads/feir/Appendix2.0-C.pdf

addition, the planned distance between turbines (629 to 1,000 meters) is certainly within the normal foraging range for a wide variety of fish, marine mammals, and sea turtles. The FEIS should look to relevant research on marine reserves to better assess the landscape effects of placing the proposed structures on Horseshoe Shoals.

Sea Turtles

EPA agrees with the DEIS conclusion that the WTG monopiles have the potential to attract loggerhead and Kemp's ridley turtles (page 5-168). On page 5-206, the DEIS concludes that recreational fishing may be enhanced by the turbines and on page 5-209, the DEIS states that commercial trawling will still be possible in and around the turbines. EPA is concerned that turtles that are attracted to these areas may be at higher risk for injury or mortality due to vessel strikes or as a result of recreational or commercial fishing. The FEIS should explore this issue more fully.

Construction Noise

The FEIS should provide additional discussion of methods for minimizing pile driving noise impacts on marine organisms. For example, the FEIS should explain the tradeoffs (from an impacts and construction standpoint) of a modification to the construction schedule limiting construction impacts to one season (rather than two) by installing more than one WTG at a time. This analysis should incorporate the recommendations and expertise of NOAA.

The cumulative impacts subsection on noise (DEIS pages 6-17/18) makes seemingly contradictory statements about the impacts of pile driving noise on marine mammals. The subsection conclusion makes no mention of impacts to marine organisms even though Section 5.3.2.6 indicates that the proposed project may result in acoustical harassment of marine mammals. The FEIS should correct this discrepancy.

Decommissioning

The DEIS projects the anticipated lifespan of the WTGs at 20 years. The FEIS should identify the anticipated lifespan for the transmission cables and scour protection and whether this span will affect the overall lifespan of the project. Also, the FEIS should describe whether there would be any environmental advantage/disadvantage to removing the transmission cables and scour protection at the end of the project life versus leaving them in place.

Other Marine Specific Comments

1. DEIS page 5-3: The FEIS should derive a rough estimate of the volume of grey water/black water to be discharged by project vessels.
2. DEIS page 5-4: The FEIS should explain how floating debris and trash generated by the project and associated vessels will be minimized.
3. DEIS page 5-57: EPA strongly supports the use of freshwater as a drilling fluid in the Horizontal Directional Drill (HDD). In addition, EPA supports the currently described plans to isolate and recover any bentonite used in the drilling process.

4. DEIS page 5-75: EPA supports the pre-construction mapping of seagrass and believes that this is most appropriately done in July, the time of peak biomass for this latitude.
5. DEIS page 5-116,117: It has been EPA's experience with recent pipeline projects that full benthic recovery to a community similar to pre-construction condition may take longer than anticipated by current scientific literature. Monitoring of soft bottom benthos in Massachusetts Bay shows that even after 3+ years, the impact areas are statistically different from reference locations.
6. DEIS page 5-117: The FEIS should explain whether scour mats need maintenance/replacement. Also, the FEIS should explain whether the density of fronds on the scour mats optimized for sediment deposition and if it is anticipated that the scour mats will support a biological community similar to what is found in natural SAV meadows. The basis for any conclusions presented should be provided in the FEIS.
7. DEIS page 5-118: DEIS suggests that rock armoring will on average be buried over time by natural forces with sand. It has been EPA's experience with several recent projects that achieving precise elevations with rock is difficult and that it is reasonable to expect that there will be some exposed hard substrate at the end of construction.
8. The FEIS should explain the frequency of monitoring to determine if the cable is/remains properly buried and should describe the protocols that will be followed if a section or sections of the cable becomes exposed.
9. In general, the DEIS states that wind turbines will be spaced 629 to 1,000 meters apart. It would be helpful to know how far apart the hard substrates associated with the various scour control technologies will be as part of the discussion of the connectivity of benthic habitat.
10. DEIS page 6-10: The cumulative impact analysis should also consider water usage/entrainment losses associated with jetting and vessels within the project area.
11. DEIS page 6-11: The DEIS refers to environmental studies done at the Horns Rev and Nysted wind parks in supporting conclusions regarding impacts to fisheries. It would be helpful if the FEIS would explain the factors which make the data from those projects transferable to the proposed project (e.g., similar substrate, WTG spacing, number of WTG units, etc.).

Air Issues

In general, EPA noted some areas where the DEIS was incomplete with regard to the air issues. The following are general comments on additional analyses that MMS needs to undertake, and are followed by a series of specific comments and edits on a section by section basis.

In general, MMS needs to:

- Work with EPA to clarify whether and when different phases of the project are OCS sources under the Clean Air Act.
- Clarify what emissions from which phases of the project would be addressed by permit under the Clean Air Act.
- Conduct a conformity determination under the Clean Air Act that EPA and MMS can agree on, and that EPA can use to determine which emissions must be offset by General Conformity.
- Clarify what emissions from which phases of the project would be addressed by General Conformity under the Clean Air Act.

Given that these issues are not addressed in the DEIS, EPA offers the following specific comments on a section by section basis. Should MMS work with EPA to address the comments above prior to the issuance of a FEIS, many of the specific comments below will also be addressed.

Section 1.2.1 - Federal Review

The MMS needs conduct an air quality analysis and make a conformity determination for the project. The results of this work will determine the nature of the air permit to be developed by EPA. In several places, the DEIS discusses the likely outcome of EPA's OCS analysis under 40 C.F.R. Part 55. EPA has some limited information regarding the air quality impacts of the project from this DEIS and Cape Wind's December 7, 2007 Notice of Intent (NOI), some of which is contradictory. However, EPA has not received a permit application, and does not have sufficient information to determine which activities might constitute "OCS sources" and/or require air permits. With regard to conformity, once the air permit application has been received and the project emissions are clearly identified, EPA will be able to determine whether those emissions must be offset by General Conformity, or are otherwise covered by the OCS air permit.

Section 1.2.1.5 – Section 7627 of the Clean Air Act (CAA)

The last sentence on page 1-4 states that during the operational phase of the project, certain activities will constitute "OCS sources" and require permitting. In contrast the DEIS and Cape Wind's NOI state that the operational phase will not involve any OCS sources. See DEIS at 5-51; NOI at 2. EPA does not yet have sufficient information to make such judgments.

On page 1-5, we would suggest the following change to line 7 of the first paragraph: "whether air modeling or other information is required."

Section 2.4.3.3 – Major Repairs

Either in this section or under Section 5.2.1, please estimate, to the extent possible, the likelihood, frequency, and potential air emissions deriving from "major repairs."

Section 2.6.2 – ESP Fluid Containment
This section states that the electrical service platform will contain "emergency generators." The DEIS at page 5-61 note 2 states that while the applicant had initially planned emergency diesel generators, the current plan will not involve any emergency generators, but rather batteries, for backup power. The FEIS should resolve this inconsistency and state precisely which equipment will be on the electrical service platform, and whether any such equipment, when operated for its intended purpose, will have the potential to emit any air pollutants.

Section 4.1.5.1 - Existing Air Quality
Paragraph two of this section (DEIS page 4-23) identifies the General Conformity Regulations (40 CFR 93.150 through 93.160), which prohibit federal agencies from, in any way, supporting any activity that does not conform to an approved implementation plan. As stated on page E-1, "The applicant requests a lease, easement, right-of-way, and any other related approvals from the Department of the Interior, Minerals Management Service necessary to authorize construction, operation and eventual decommissioning of the proposed action." Thus, MMS is required to apply the General Conformity Regulations to its action.

We request that MMS clearly identify in the FEIS their obligation to evaluate General Conformity. As the DEIS indicates project emissions in the construction and decommissioning years will exceed the General Conformity *De minimis* thresholds[2], MMS should: (a) address its plans for developing the air quality conformity analysis; (b) address its plans for satisfying General Conformity (accounting for the emissions within the implementation plan or offsetting the emissions); (c) describe plans for releasing a draft general conformity determination and associated public participation process; and (d) describe plans for releasing Final General Conformity Determination.

Paragraph two (DEIS page 4-23) goes on to state, "Air emissions, within nonattainment areas, that are not covered by an air permit and that exceed the minimal levels require a conformity analysis." This statement should be revised to clarify that only air emissions covered by a "major source" air permit do not require a conformity determination.

Section 5.1.5.5 – Air Emissions
The FEIS should clarify whether the electrical service platform, not counting vessels, has any potential to emit any air pollutants. The discussion should include particular reference to emergency generators, transformers with oil/air heat exchangers, paints and paint thinners, etc. In addition, the FEIS should include a specific description of the air emissions attributable to construction of the WTGs, ESP, and cable installation.

We would also suggest that the third sentence of this section (DEIS page 5-14) be modified as follows: "The vessel emissions represent a mobile source except when

[2] The *De minimis* thresholds for a moderate 8-hour ozone nonattainment area (including Boston-Lawrence-Worcester (E. Mass), MA and Providence (all of RI), RI) is 50 tons per year of volatile organic compounds (VOC) and 100 tons per year of nitrogen oxides (NOx).

attached to the seabed and functioning as a stationary source, and are not predicted to result in a lowering of air quality ..."

Section 5.3.1.5 – Impacts on Air Quality
Under "**Regulatory Analysis**" on pages 5-50 and 5-51 we would suggest the following edits:

- First paragraph: "At the time of promulgation, ~~the regulations were intended to apply to~~ USEPA noted that the primary OCS activity was oil and gas development, ..."
- First paragraph: "However, some activities associated with the proposed action ~~are~~ may be considered an OCS source, ..."
- Add, at end of first paragraph: "On February 27, 2008, USEPA proposed a consistency update incorporating relevant Massachusetts regulations into Part 55. See 73 Fed. Reg. 10,406."
- Third paragraph: "The proposed action has at least three distinct time periods ..."
- Fourth paragraph: "The OCS equipment ~~sources~~ for the proposed action ~~would be~~ could include the vibracore . . . and the support vessels servicing ~~these OCS sources~~ the OCS source(s) ..."
- Fourth paragraph, item 1: "... ~~would~~ could be considered to be one or more OCS sources."
- Fourth paragraph, item 2: "During the two-year construction period, potential OCS sources may include the ... Potential OCS sources may include the ... Finally, potential OCS sources may include ..."
- Forth paragraph, item 3: "These barges and cranes and dredging equipment ~~would~~ could be considered one or more OCS sources."
- Fourth paragraph, item 4: "During construction and during decommissioning, or other times when an OCS source is present, emissions from ... en route to or from ~~these~~ any OCS source(s) ~~identified in items 1 through 3~~ would be counted towards the potential to emit of the OCS source(s) ~~also be regulated by the USEPA permit~~ when ..."

Construction/Decommissioning Impacts
As discussed in the DEIS, the project will result in air quality impacts offshore during the two years of construction and the two years of decommissioning. In both the Executive Summary (DEIS page E-12) and the Environmental Consequences chapter (DEIS page 5-53) the DEIS concludes that construction impacts on air quality would be minor. However, the DEIS does not present an analysis to support this conclusion and instead states that EPA, through any Clean Air Act permits that may be required, will determine whether and how air quality modeling will be conducted, and what limits and mitigation measures will be imposed. While we agree that EPA would make such determinations as part of any permit process, MMS nevertheless has an obligation under NEPA, in consultation with EPA as a cooperating agency and state environmental agencies, to analyze the project's impacts on air quality and alternative ways to minimize those impacts, and to present this analysis in the EIS for public review. We reiterate our offer to work with MMS to ensure that this obligation is met.

Section 5.3.1.5.2 – Operational Impacts

The DEIS at page 5-55 under the subheading "**Benefit Analysis for Air Quality**," moves between a discussion of capacity in New England (MW) and production (MWh). These two terms are not interchangeable, and the resulting discussion is confusing. EPA recommends that the FEIS present this information in a manner that clearly distinguishes between electricity produced in MWh, and installed generating capacity in MW.

MMS should examine the impact on air quality with regard to electricity production and the air pollution associated with that production. In particular, the second part of the first paragraph discussion on peak demand is confusing and inconsistent with the rest of the discussion since it focuses on capacity instead of production.

EPA recommends that the analysis focus on the number of MWh that Cape Wind is likely to produce–and the NO_x, and SO_2 emissions associated with other generation likely to be displaced. Given that production from Cape Wind is likely to be variable, it probably makes more sense for MMS to analyze average projected monthly production for Cape Wind and provide a range of projected average NO_x and SO_2 emission reductions. However, if MMS wants to do this analysis on a daily basis, MMS should look at average projected production per day of the Cape Wind project in MWh and compare that to the marginal emission rate for the power system. In addition, the analysis should be updated to reflect the most recent emission rates published by ISO New England. Furthermore, given the growing concern about climate change, and the state and regional goals (as noted in the cover letter), EPA recommends that the analysis address CO_2 emissions in addition to the pollutants discussed above.

Appendix B – Table 5.3.1-7, Potential Project Emissions by Major Activity

Table 5.3.1-7, Potential Project Emissions by Major Activity, should be revised to include project emissions associated with onshore activities. Additionally, the General Conformity air quality analyses must show the activities, duration/time, and emission factors used to develop the annual emissions in this table.

Appendix B – Table 5.3.1-8, Potential Project Emissions by Location

EPA appreciates Table 5.3.1-8, which attempts to quantify and categorize air emissions. However, the division into "State Waters–Rhode Island," "State Waters–Massachusetts," "OCS Covered By Permit," and "OCS Not Covered By Permit" is not entirely clear, and presumes certain judgments that EPA cannot evaluate with the present information. In addition, one entry ("Operations/OCS Covered by Permit") appears to contradict an earlier statement in the DEIS that the operation phase will not require an OCS permit.

We recommend that the air emissions be recategorized as follows:

- Onshore – Rhode Island
- Onshore – Massachusetts
- Transit – Massachusetts Waters, Beyond 25 Miles from Array Perimeter
- Transit – Rhode Island Waters, Beyond 25 Miles from Array Perimeter

- Transit – Massachusetts Waters, Within 25 Miles from Array Perimeter
- Transit – Rhode Island Waters, Within 25 Miles from Array Perimeter *(unless MMS can categorically state that no point 25 miles from the array perimeter lies within Rhode Island waters, in which case this category is unnecessary)*
- Transit – OCS Waters, Beyond 25 Miles from Array Perimeter
- Transit – OCS Waters, Within 25 Miles from Array Perimeter
- Stationary Activities – OCS or OCS Waters

Additionally, the General Conformity air quality analyses must show the activities, duration/time, and emission factors used to develop the annual emissions in this table.

Environmental Management System

We believe the concept of an Environmental Management System (EMS) for purposes of managing the mitigation measures for this project is a good one. The development of the mitigation measures and the EMS should proceed in earnest while the FEIS is being developed, not postponed until the NEPA process has concluded. In light of the importance of monitoring and mitigation for the range of impacts expected from the project, we strongly believe that MMS should establish an agency working group responsible for working with MMS to develop relevant aspects of the mitigation plan and the EMS. Many of the federal agencies are also cooperating agencies and a role in the development of the specific items to be incorporated into the mitigation plan and the EMS is a logical one for these agencies to assume. We anticipate that federal agencies work on the mitigation plan and EMS would include (but not be limited to) issues such as: monitoring and addressing air quality impacts during construction, maintenance and decommissioning; monitoring and addressing project related water quality issues; emergency response planning (including work related to spills); monitoring and addressing acoustic and other impacts to marine mammals; and evaluating/monitoring and addressing avian impacts. The results of the ongoing coordination on the EMS should be explicitly reported in the FEIS so that the EMS can be evaluated by interested members of the public.