



MARINE MAMMAL COMMISSION

12 May 2016

Ms. Jolie Harrison, Chief
Permits and Conservation Division
National Marine Fisheries Service
Office of Protected Resources (F/PR1)
1315 East-West Highway
Silver Spring, Maryland 20910

Dear Ms. Harrison:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the application submitted by Deepwater Wind Block Island, LLC (DWBI), seeking an incidental harassment authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act (MMPA). DWBI is seeking authorization to take small numbers of marine mammals by harassment incidental to installation of export and inter-array cables for the Block Island Wind Farm (BIWF) in Rhode Island. The Commission also has reviewed the National Marine Fisheries Service's (NMFS) 15 April 2016 notice (81 Fed. Reg. 22216) announcing receipt of the application and proposing to issue the authorization subject to certain conditions. The Commission provided comments on DWBI's previous application for construction of the BIWF, including cable installation (see the Commission's 21 April 2014 letter), but the cable installation work was not performed as originally scheduled.

Background

DWBI plans to install an export cable between Narragansett and Block Island and to install an inter-array cable between Block Island and each of the BIWF wind turbine generators. Installation would involve the use of a cable-laying vessel equipped with a dynamic positioning (DP) system. Cable installation would begin in May 2016 and occur during a 6-month period, with cable installation expected to occur for up to 28 days. The proposed activities are expected to occur during day and nighttime.

NMFS preliminarily has determined that the proposed activities could modify temporarily the behavior of small numbers of up to nine species of marine mammals, but that the total taking would have a negligible impact on the affected species or stocks. NMFS does not anticipate any take of marine mammals by death or serious injury. It believes that the potential for temporary or permanent hearing impairment will be at the least practicable level because of DWBI's proposed mitigation measures. The mitigation, monitoring, and reporting measures include—

- conducting sound source verification measurements and adjusting the Level B harassment zone (based on 120 dB re 1 μPa ¹), as necessary;
- using vessel-based observers to monitor a portion of the Level B harassment zone² from the time the vessel leaves the dock, throughout cable installation, and until the vessel has returned to the dock;
- reducing the power of the DP system to the maximum extent possible if a marine mammal approaches or enters the 160-dB re 1 μPa harassment zone, with normal use of the system resuming after a 30-minute clearance time;
- following NMFS guidelines for marine mammal ship strike avoidance³ and maintaining vessel speeds of 10 knots or less from 1 November through 30 April;
- reporting injured and dead marine mammals to the Office of Protected Resources and the Greater Atlantic Regional Fisheries Office Stranding Coordinator using NMFS's phased approach and suspending activities, if appropriate; and
- submitting field and technical reports and a final comprehensive report to NMFS.

Estimation of takes

The Commission has several concerns regarding how the numbers of species-specific takes were estimated. First, the average ensonified area (25.1 km²) used by DWBI and NMFS to estimate numbers of takes is not reflective of the area expected to be ensonified on a given day. Given that the average distance to the 120-dB re 1 μPa isopleth⁴ is 4.3 km, the cable-laying vessel would be assumed to travel only 3 km in a given day. That is further confounded by the fact that the total line-kilometers of cable to be laid is 13.2 km, which would equate to on average 0.5 km of cable being laid on any of the 28 days of activities. Neither estimate is realistic. Other cable-laying activities assume the cable-laying vessel would travel up to 0.6 km/hour (Owl Ridge Natural Resource Consultants, Inc. 2016). Without more detailed information on the distance the cable-laying vessel would be expected to travel each day and whether 28 days of activities would be necessary to complete the activities, it is not clear if the take estimates have been under- or over-estimated. The Commission recommends that NMFS recalculate the numbers of takes based on (1) including a more accurate estimate of the distance that DWBI expects the cable-laying vessel to travel each day and (2) clarifying the number of days of activities necessary to complete the cable installation.

The Commission also is concerned that the method used to estimate the numbers of takes does not account for NMFS's 24-hour reset policy, resulting in an overestimated number of takes for some species and an underestimated number of takes for others. Specifically, fractions of takes

¹ The *Federal Register* notice indicated sound source verification would confirm the 160-dB re 1 μPa harassment zone, but NMFS has since clarified that the measurements would extend to the 120-dB re 1 μPa isopleth, which is consistent with the size of the Level B harassment zone for the DP system (a continuous sound source).

² The *Federal Register* notice indicated that a monitoring zone would be established equivalent to the size of the predicted 160-dB re 1 μPa isopleth for DP thruster use (5 m) rather than the 120-dB re 1 μPa isopleth for a continuous sound source. However, NMFS indicated in the notice and has since further clarified that it would require DWBI to monitor and record all marine mammal sightings that are "visibly feasible" beyond the 160-dB re 1 μPa isopleth.

³ The URL cited in the *Federal Register* notice as the source for the "NMFS guidelines for marine mammal ship strike avoidance" is no longer active.

⁴ For moving sound sources, the distance traveled in a day should be multiplied by twice the distance to the relevant isopleth to determine the daily ensonified area.

for each species were summed across days and then rounded. Instead, NMFS should have calculated the daily take estimate (determined by multiplying the estimated density of marine mammals in the area by the daily ensonified area) and then rounded that to a whole number *before* multiplying the daily estimate by the number of days the DP system would be used. For species in which estimated daily takes would round down to zero, NMFS should use the average group size as a proxy for the estimated number of takes, as has been done for other incidental harassment authorizations (80 Fed. Reg. 75380, 81 Fed. Reg. 23144). If NMFS believes any of those species could be taken on multiple days, NMFS should multiply the average group size by the number of days of activities. The Commission has commented on NMFS's inconsistent use of its 24-hour reset and standard rounding rules numerous times in the past, yet these issues persist in NMFS's proposed authorizations. Therefore, the Commission recommends that NMFS (1) abide by its policy of a 24-hour reset for enumerating the number of each species that could be taken, (2) apply standard rounding rules before summing the numbers of estimated takes across days, and (3) for species that have the potential to be taken but model-estimated or calculated takes round to zero, use group size to inform the take estimates—these methods should be used consistently for all future incidental take authorizations.

With respect to gray and harbor seals, take estimates were underestimated. An arbitrary 80-percent reduction factor was applied to the pinniped take estimates on the presumption that the original density estimate⁵ is an overestimation because it includes the breeding populations of Cape Cod. That reduction factor is unsubstantiated given that the references⁶ cited by both NMFS and DWBI are outdated and do not represent the most current population information. In addition, the Commission understands that more recent survey data is available for gray and harbor seals (and other marine mammal species), specifically resulting from the Atlantic Marine Assessment Program for Protected Species (AMAPPS) project. Therefore, the Commission recommends that NMFS revise its take estimates for gray and harbor seals by removing the 80-percent reduction factor and advise future applicants to use up-to-date density estimates that reflect best available information for gray and harbor seals and other marine mammals.

Mitigation measures

NMFS would require DWBI project vessels to operate at speeds of 10 knots or less from 1 November through 30 April. However, the proposed activities are expected to occur primarily from May through October. Passive acoustic monitoring for North Atlantic right whales in the mid-Atlantic indicate the presence of whales throughout the summer months (Whitt et al. 2013, Salisbury et al. 2016), beyond the period covered by the seasonal management areas in which speed restrictions are in effect. Year-round presence of right whales off Rhode Island also is likely, as indicated by NMFS's recent proposal to require geophysical and geotechnical survey vessels operating off southern Massachusetts to comply with speed restrictions of 10 knots or less from November to July.⁷ To ensure consistent protection for North Atlantic right whales throughout their range, the Commission recommends that NMFS require DWBI to operate its cable-laying and support vessels at speeds of 10 knots or less year-round.

⁵ Based on Department of the Navy (2007).

⁶ Schroeder (2000), Ronald and Gots (2003), and Kenney and Vigness-Raposa (2009)

⁷ For DONG Energy Massachusetts (81 Fed. Reg. 19557).

NMFS has stated that it would require DWBI to reduce DP thruster power to the maximum extent possible if a marine mammal enters or approaches the 160-dB re 1 μ Pa harassment zone, which is only 5 m. However, the intent of this measure is not clear since the potential for Level B harassment from the DP thruster would occur within the broader 120-dB re 1 μ Pa isopleth. In addition, DWBI already expects to be operating DP thrusters at a reduced level (50 percent of full power) during routine operations. Therefore, the Commission questions whether further power reductions below this level are practicable.

The Commission also is concerned about the safety implications of the measure. NMFS indicated in the *Federal Register* notice that reducing DP thruster power would not be required if that reduction would compromise safety (both human and environmental). In another project involving cable installation and the use of a DP system, the applicant stated that “thrusters cannot be shut down or powered down during cable-lay operations” and that “cable laying is a tethered operation and any loss of position can result in dangerous risk to cable, equipment, vessel, and personnel aboard.” That proposed authorization did not include a power-down requirement. Nevertheless, the Commission notes that NMFS included a similar power-down requirement for DP thrusters in another recently proposed incidental harassment authorization⁸. Given that requiring an additional power down would provide lesser positional stability of the vessel, the Commission questions whether the risk of impacts to the animals in close proximity to the vessel also would increase.

Based on concerns regarding the practicability and safety of requiring power down of the DP system as a mitigation measure, the Commission recommends that NMFS review the requirement for applicants to reduce DP thruster power levels (for systems operating at both 100 and 50 percent power) when a marine mammal is observed approaching or within the Level B harassment zone and consider input received from DWBI and other applicants subject to similar power-down requirements.

Please let me know if you have any questions regarding this letter.

Sincerely,



Rebecca J. Lent, Ph.D.
Executive Director

References

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