



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

MAY 31 2016

Aileen Kenney
Vice President of Permitting and Environmental Affairs
Deepwater Wind, LLC
56 Exchange Terrace, Suite 101
Providence, RI 02903-1772

Dear Ms. Kenney,

Enclosed is an Incidental Harassment Authorization (IHA) issued pursuant to section 101(a)(5)(D) of the Marine Mammal Protection Act (16 U.S.C. 1361 *et seq.*), to take small numbers of marine mammals, by Level B harassment, incidental to the installation of the Block Island Wind Farm export and inter-array cables. You are required to comply with the conditions contained in the IHA, including all mitigation, monitoring, and reporting requirements. In addition, you must cooperate with any federal, state, or local agency monitoring the impacts of your activities.

If you have any questions concerning the IHA or its requirements, please contact John Fiorentino, Office of Protected Resources (NMFS), at 301-427-8477.

Sincerely,

Donna S. Wieting,
Director, Office of Protected Resources,
National Marine Fisheries Service.

Enclosure





INCIDENTAL HARASSMENT AUTHORIZATION

Deepwater Wind Block Island, LLC (DWBI), 56 Exchange Terrace, Suite 101, Providence, Rhode Island, 02903, is hereby authorized under section 101(a)(5)(D) of the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1371(a)(5)(D)) to harass marine mammals incidental to the installation of the Block Island Wind Farm (BIWF) export and inter-array cables, contingent upon the following conditions:

1. This Authorization is valid for a period of one year from the date of issuance.
2. This Authorization is valid only for use of dynamically positioned (DP) vessel thrusters associated with the installation of the BIWF export and inter-array cables approximately 4.8 kilometers southeast of Block Island, Rhode Island.
3. General Conditions
 - (a) A copy of this IHA must be in the possession of DWBI, its designees, and work crew personnel operating under the authority of this IHA.
 - (b) The species and numbers authorized for taking are:
 - (i) Minke whale (*Balaenoptera actuorostrata*) - 5
 - (ii) Fin whale (*Balaenoptera physalus*) - 23
 - (iii) Humpback whale (*Megaptera novaeangliae*) - 2
 - (iv) North Atlantic right whale (*Eubalaena glacialis*) - 1
 - (v) Short-beaked common dolphin (*Delphinus delphis*) - 87
 - (vi) Atlantic white-sided dolphin (*Lagenorhynchus acutus*) - 79
 - (vii) Harbor porpoise (*Phocoena phocoena*) - 8
 - (viii) Gray seal (*Halichoerus grypis*) - 160
 - (ix) Harbor seal (*Phoca vitulina*) - 110



- (c) The taking, by Level B harassment only, is limited to the species listed in condition 3(b).
- (d) The taking by injury (Level A harassment), serious injury, or mortality of any of the species listed in Condition 3(b) above or any taking of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this IHA.
- (e) DWBI shall conduct briefings between construction supervisors and crews, marine mammal monitoring team, acoustical monitoring team, and DWBI staff prior to the start of all cable installation operations, and when new personnel join the work, in order to explain responsibilities, communication procedures, marine mammal monitoring protocol, and operational procedures.
- (f) DWBI shall conduct a maximum of 28 days of cable installation activities.

4. Mitigation Requirements

The holder of this Authorization is required to implement the following mitigation measures.

- (a) DP Thruster Power Reduction
 - (i) If marine mammals enter or approach a 5-m radius from the DP vessel (estimated to be the 160 dB 1 μ Pa-m (rms) isopleth), DWBI shall reduce DP thruster power to the maximum extent possible, except under circumstances when reducing DP thruster use would compromise safety (both human health and environmental) and/or the integrity of the project.
 - (ii) After decreasing DP thruster energy, protected species observers (PSOs) shall continue to monitor marine mammal behavior and determine if the animal(s) is moving towards or away from the established monitoring zone.
 - (iii) If the animal(s) continues to move towards the sound source then DP thruster use shall remain at the reduced level. Normal thruster use may resume when PSOs report that marine mammals have moved away from and remained clear of the monitoring zone for a minimum of 30 minutes since the last sighting.
- (b) Vessel Speed Restrictions and Strike Avoidance
 - (i) All DWBI project vessels shall operate at speeds of 10 knots or less during cable installation activities.

- (ii) DWBI shall adhere to NMFS guidelines for marine mammal ship strike avoidance (<http://www.nmfs.noaa.gov/pr/shipstrike/>).

5. Monitoring Requirements

The holder of this Authorization is required to conduct marine mammal monitoring during cable installation activities and to conduct sound source verification measurements.

(a) Visual Monitoring

- (i) DWBI shall establish a monitoring zone equivalent, at a minimum, to a 5-m radius (the assumed 160-dB isopleth) around the DP vessel. All marine mammal sightings, including any beyond the 5-m radius, shall be recorded and potential takes shall be noted.
- (ii) Visual observation of the 5-m-radius monitoring zone established for DP vessel operation during cable installation shall be performed by qualified and NMFS approved PSOs. DWBI shall provide the resumes to NMFS for review and approval prior to the start of construction activities.
- (iii) A minimum of two PSOs shall be stationed aboard the DP vessel and each PSO shall monitor 360 degrees of the field of vision from the highest optimum vantage point for conducting marine mammal observations.
- (iv) PSOs shall begin observation as the vessel initially leaves the dock, shall continue throughout the cable installation, and shall end after the DP vessel has returned to dock.
- (v) PSOs shall estimate distances to marine mammals visually, using laser range finders, or by using reticle binoculars during daylight hours; during night operations, night vision binoculars shall be used.
- (vi) Information recorded during each observation shall be used to estimate numbers of animals potentially taken and shall include the following:
 - (A) Date, time, and location of construction operations
 - (B) Number of individuals observed
 - (C) Frequency of observations
 - (D) Location (i.e., distance from sound source)
 - (E) DP vessel thruster status (i.e., energy level)

- (F) Weather conditions (i.e., percent cloud cover, visibility, percent glare)
 - (G) Water conditions (i.e., Beaufort sea-state, tidal state)
 - (H) Details of mammal sightings (species, sex, age classification [if known], numbers)
 - (I) Reaction of the animal(s) to relevant sound source (if any) and observed animal behavior (e.g., avoidance, approach), including bearing and direction of travel
- (b) Acoustic Field Verification
- (i) DWBI shall perform field verification to confirm the 160-dB and 120-dB 1 μ Pa-m (rms) isopleths.
 - (ii) Field verification during cable installation using DP thrusters shall be performed using acoustic measurements from two reference locations at two water depths (a depth at mid-water and a depth at approximately 1 m above the seafloor).
 - (iii) If field verification measurements suggest a larger monitoring zone, the preliminary 5-m-radius monitoring zone shall be modified to ensure adequate protection to marine mammals.

6. Reporting Requirements

The holder of this Authorization is required to provide the following notifications and reports:

- (a) Notification to NMFS and the U.S. Army Corps of Engineers (USACE) within 24 hours of beginning construction activities and again within 24 hours of completion.
- (b) Notification to NMFS and USACE within 24 hours whenever a monitoring zone is re-established by DWBI. After any re-establishment of the monitoring zone, DWBI shall provide a report to NMFS and USACE detailing the field-verification measurements within 7 days. This includes information, such as: a detailed account of the levels, durations, and spectral characteristics of DP thruster use, and the peak, RMS, and energy levels of the sound pulses and their durations as a function of distance, water depth, and tidal cycle.
- (c) Notification to NMFS and USACE within 24 hours if field verification measurements suggest a larger monitoring zone.

- (d) Within 90 days after completion of the construction activities, a draft technical report shall be provided to NMFS and USACE that fully documents the methods, mitigation, and monitoring protocols implemented, summarizes the data recorded during monitoring (as identified in 5(a)(v)), estimates the number of marine mammals that may have been taken during construction activities, and provides an interpretation of the results and an assessment of the implementation and effectiveness of prescribed monitoring and mitigation measures.

The draft report shall be subject to review and comment by NMFS. Any recommendations made by NMFS must be addressed in the final report prior to acceptance by NMFS. The draft report shall be considered the final report for this activity under this Authorization if NMFS has not provided comments and recommendations within 30 days of receipt of the draft report.

- (e) Reporting injured or dead marine mammals

- (i) In the unanticipated event that the specified activities clearly causes the take of a marine mammal in a manner prohibited by the IHA, such as a serious injury, or mortality, DWBI would immediately cease the specified activities and report the incident to the Office of Protected Resources, NMFS (301-427-8401 and/or by email to *Jolie.Harrison@noaa.gov* and *John.Fiorentino@noaa.gov*), and the Greater Atlantic Regional Fisheries Office (GARFO) Stranding Coordinator, NMFS (978-282-8478 and/or by email to *Mendy.Garron@noaa.gov*). The report would include the following information:

1. Time and date of the incident;
2. Description of the incident;
3. Environmental conditions (e.g., wind speed and direction, Beaufort sea state, cloud cover, and visibility);
4. Description of all marine mammal observations and active sound source use in the 24 hours preceding the incident;
5. Species identification or description of the animal(s) involved;
6. Fate of the animal(s); and
7. Photographs or video footage of the animal(s) (if equipment is available).

Activities shall not resume until NMFS is able to review the circumstances of the prohibited take. NMFS shall work with DWBI to determine what measures are necessary to minimize the likelihood of further prohibited

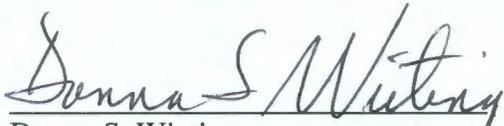
take and ensure MMPA compliance. DWBI may not resume their activities until notified by NMFS.

- (ii) In the event that DWBI discovers an injured or dead marine mammal, and the lead observer determines that the cause of the injury or death is unknown and the death is relatively recent (e.g., in less than a moderate state of decomposition), DWBI shall immediately report the incident to Office of Protected Resources, NMFS, and the GARFO Stranding Coordinator, NMFS.

The report must include the same information identified in 6(e)(i) of this IHA. Activities may continue while NMFS reviews the circumstances of the incident. NMFS shall work with DWBI to determine whether additional mitigation measures or modifications to the activities are appropriate.

- (iii) In the event that DWBI discovers an injured or dead marine mammal, and the lead observer determines that the injury or death is not associated with or related to the activities authorized in the IHA (e.g., previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), DWBI shall report the incident to the Office of Protected Resources, NMFS, and the GARFO Stranding Coordinator, NMFS, within 24 hours of the discovery. DWBI shall provide photographs or video footage (if available) or other documentation of the stranded animal sighting to NMFS.

- 7. This Authorization may be modified, suspended or withdrawn if the holder fails to abide by the conditions prescribed herein, or if NMFS determines the authorized taking is having more than a negligible impact on the species or stock of affected marine mammals.


Donna S. Wieting,
Director, Office of Protected Resources,
National Marine Fisheries Service.

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Date