



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

SEP 03 2014

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 construction of the Block Island Wind Farm. 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,

Paola GAYACCO

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

Enclosure





UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
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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 small numbers of marine mammals incidental to impact pile driving and dynamically positioned (DP) vessel thruster use during construction of the Block Island Wind Farm (BIWF), contingent upon the following conditions:

1. This Authorization is valid from October 31, 2014, through October 30, 2015.
2. This Authorization is valid for construction of the BIWF in the coastal and marine environment east of Block Island and in Rhode Island Sound, as specified in DWBI's Incidental Harassment Authorization application.
3. Species Impacted and Level of Takes

(a) The incidental taking of marine mammals, by Level B harassment only, is limited to the following species in the waters east of Block Island and in Rhode Island Sound:

- (i). Minke whale (*Balaenoptera actuorostrata*) - 14
- (ii). Fin whale (*Balaenoptera physalus*) - 75
- (iii). Humpback whale (*Megaptera novaeangliae*) - 5
- (iv). North Atlantic right whale (*Eubalaena glacialis*) - 3
- (v). Short-beaked common dolphin (*Delphinus delphis*) - 249
- (vi). Atlantic white-sided dolphin (*Lagenorhynchus acutus*) - 214
- (vii). Harbor porpoise (*Phocoena phocoena*) - 21
- (viii). Gray seal (*Halichoerus grypis*) - 107
- (ix). Harbor seal (*Phoca vitulina*) - 74

(b) The taking by injury (Level A harassment), serious injury, or mortality of any of the species listed in Condition 3(a) above or the taking of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this Authorization.



4. The taking of any marine mammal in a manner not authorized under this Authorization must be reported immediately to NMFS' Greater Atlantic Region, 55 Great Republic Drive, Gloucester, MA 01930-2276; phone 978-281-9328, and NMFS' Office of Protected Resources, 1315 East-West Highway, Silver Spring, MD 20910; phone 301-427-8401; fax 301-713-0376.

5. The Holder or designees must notify NMFS' Greater Atlantic Region and Headquarters at least 24 hours prior to the seasonal commencement of the specified activity (see contact information in 4 above).

6. Mitigation Requirements: The Holder is required to implement the following mitigation requirements. Failure to comply with these conditions may result in the modification, suspension, or revocation of this Authorization.

(a) Marine Mammal Exclusion Zone: Protected species observers shall visually monitor an estimated 180-dB isopleth "exclusion zone" (initially estimated at 200 m and 600 m for the 200 kJ and 600 kJ pile driving hammers, respectively) during all impact pile driving activity. A minimum of two observers shall be stationed aboard the noise-producing support vessel and shall monitor a 360-degree field of vision. Observers shall begin monitoring at least 30 minutes prior to impact pile driving, continue monitoring during impact pile driving, and stop monitoring 30 minutes after impact pile driving has ended.

(b) Soft-start Procedures: Soft-start procedures shall be implemented at the beginning of each day and if pile driving has stopped for more than 30 minutes. The Holder shall initiate a set of three strikes from the impact hammer at 40 percent energy with a 1-minute waiting period between subsequent three-strike sets. This procedure shall be repeated two additional times before full energy is reached. The Holder shall not initiate a soft-start if the monitoring zone is obscured by fog, inclement weather, poor lighting conditions, etc.

(c) Delay and Shutdown Procedures: The Holder shall delay impact pile driving if a marine mammal is observed within the relevant estimated 180-dB isopleth marine mammal exclusion zone and until the exclusion zone is clear of marine mammals. The Holder shall reduce impact pile driving energy by 50 percent if a marine mammal continues toward or enters the 180-dB isopleth.

(d) DP Thruster Power Reduction: During DP vessel operations, The Holder shall reduce DP thruster power to the maximum extent possible if a marine mammal approaches or enters the 160-dB isopleth from the vessel. The Holder shall not increase power until the zone is clear of marine mammals for 30 minutes.

(e) Time of Day and Weather Restrictions: The Holder shall conduct impact pile driving during daylight hours only, starting approximately 30 minutes after dawn and ending 30 minutes before dusk unless a situation arises where stopping pile driving would compromise safety (either human health or environmental) and/or the integrity of the project. The Holder shall not initiate impact pile driving until the entire marine mammal exclusion zone is visible.

(f) Vessel Speed Restrictions: All project vessels, regardless of length and location, shall operate at speeds of 10 knots or less from November 1 through April 30.

(g) Ship Strike Avoidance: The Holder shall adhere to NMFS guidelines for marine mammal ship strike avoidance (http://www.nmfs.noaa.gov/pr/pdfs/education/viewing_northeast.pdf).

7. Monitoring Requirements: The Holder is required to implement the following monitoring requirements. Failure to comply with these conditions may result in the modification, suspension, or revocation of this Authorization.

(a) Protected species observers shall survey the estimated 160-dB isopleths 30 minutes before, during, and 30 minutes after all in-water impact pile driving and DP vessel thruster use. The observers shall be stationed on the highest available vantage point on the associated operating platform. Observers shall estimate distances to marine mammals visually, using laser range finders, or by using reticle binoculars during daylight hours. During night operations (DP vessel thruster use only), observers shall use night-vision binoculars. Information recorded during each observation shall be used to estimate numbers of animals potentially taken and shall include the following:

- Numbers of individuals observed;
- Frequency of observation;
- Location (i.e., distance from the sound source);
- Impact pile driving status (i.e., soft-start, active, post pile driving, etc.);
- DP vessel thruster status (i.e., energy level); and
- Reaction of the animal(s) to relevant sound source (if any) and observed behavior, including bearing and direction of travel.

(b) The Holder shall conduct field verification of the estimated 180-dB isopleths during impact pile driving. Acoustic measurements shall be taken during impact pile driving of the last half (deepest pile segment) for any given open-water pile and from two reference locations at two water depths (a depth at mid-water and at about 1 m above the seafloor). If the field measurements show that the 180-dB isopleth is beyond the initially proposed distances, a new zone shall be established accordingly. If the field measurements show that the 180-dB isopleth is less the initially proposed distances, a new zone may be established accordingly. The Holder shall notify NMFS within 24 hours if a new marine mammal exclusion zone is established that extends beyond what is initially established. Implementation of a smaller zone shall be contingent on NMFS' review and shall not be used until NMFS approves the change. The Holder shall also perform field verification of the 160-dB isopleth associated with DP vessel thruster use during cable installation. Acoustic measurements shall be taken from two reference locations at two water depths (a depth at mid-water and at about 1 m above the seafloor). Similar to field verification during impact pile driving, the DP thruster power reduction zone may be modified as necessary.

8. Reporting Requirements:

The Holder shall provide the following notifications during construction activities:

- Notification to NMFS within 24-hours of beginning construction and again within 24-hours of completion;
- Detailed report of field-verification measurements within 7 days of completion and notification to NMFS within 24-hours if a new zone is established; and
- Notification to NMFS within 24-hours if field verification measurements suggest a larger marine mammal exclusion zone.

The Holder shall submit a technical report to the Office of Protected Resources, NMFS, within 120 days of the conclusion of monitoring.

(a) The report shall contain the following information:

- A summary of the activity and monitoring plan (i.e., dates, times, locations);
- A summary of mitigation implementation;
- Monitoring results and a summary that addresses the goals of the monitoring plan, including the following:
 - Environmental conditions when observations were made:
 - Water conditions (i.e., Beaufort sea state, tidal state)
 - Weather conditions (i.e., percent cloud cover, visibility, percent glare)
 - Date and time survey initiated and terminated
 - Date, time, number, species, and any other relevant data regarding marine mammals observed (for pre-activity, during activity, and post-activity surveys)
 - Description of the observed behaviors (in both the presence and absence of activities):
 - If possible, the correlation to underwater sound level occurring at the time of any observable behavior
- Estimated exposure/take numbers during activities; and
- An assessment of the implementation and effectiveness of prescribed mitigation and monitoring measures.

(b) In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a manner not authorized here, such as an injury, serious injury, or mortality (e.g., ship-strike, gear interaction, and/or entanglement), the Holder shall immediately cease the specified activities and immediately report the incident to the Incidental Take Program Supervisor, Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401 and/or by email to Jolie.Harrison@noaa.gov and John.Fiorentino@noaa.gov. The report must include the following information:

- Time, date, and location (latitude/longitude) of the incident;
- Name and type of vessel involved;
- Vessel's speed during and leading up to the incident;
- Description of the incident;

- Status of all sound source use in the 24 hours preceding the incident;
- Water depth;
- Environmental conditions (e.g., wind speed and direction, Beaufort sea state, cloud cover, and visibility);
- Description of all marine mammal observations in the 24 hours preceding the incident;
- Species identification or description of the animal(s) involved;
- Fate of the animal(s); and
- Photographs or video footage of the animal(s) (if equipment is available).

The Holder shall not resume its activities until NMFS is able to review the circumstances of the prohibited take. NMFS will work with the Holder to determine what is necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. The Holder may not resume activities until notified by us via letter, email, or telephone.

(c) In the event that the Holder discovers an injured or dead marine mammal, and the lead visual observer determines that the cause of the injury or death is unknown and the death is relatively recent (i.e., in less than a moderate state of decomposition as we describe in the next paragraph), the Holder shall immediately report the incident to the Incidental Take Program Supervisor, Permits and Conservation Division, Office of Protected Resources, at 301-427-8401 and/or by email to Jolie.Harrison@noaa.gov, John.Fiorentino@noaa.gov, and Mendy.Garron@noaa.gov. The report must include the same information identified in the paragraph above this section. Activities may continue while we review the circumstances of the incident. NMFS will work with the Holder to determine whether modifications in the activities are appropriate.

(d) In the event that the Holder discovers an injured or dead marine mammal, and the lead visual observer determines that the injury or death is not associated with or related to the authorized activities (e.g., previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), the Holder shall report the incident to the Incidental Take Program Supervisor, Permits and Conservation Division, Office of Protected Resources, at 301-427-8401 and/or by email to Jolie.Harrison@noaa.gov, John.Fiorentino@noaa.gov, and Mendy.Garron@noaa.gov within 24 hours of the discovery. The Holder shall provide photographs or video footage (if available) or other documentation of the stranded animal sighting to us.

9. A copy of this Authorization must be in the possession of all contractors and protected species observers operating under the authority of this Incidental Harassment Authorization.

10. 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.

11. Penalties and Permit Sanctions: Any person who violates any provision of this Incidental Harassment Authorization is subject to civil and criminal penalties, permit sanctions, and forfeiture as authorized under the MMPA.

SEP 03 2014

Perry GAYAUDD

for

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

Date