



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE

INCIDENTAL HARASSMENT AUTHORIZATION

Fishermen's Atlantic City Windfarm, LLC (Fishermen's) (985 Ocean Drive, Cape May, New Jersey 08204) is hereby authorized under section 101(a)(5)(D) of the Marine Mammal Protection Act (16 U.S.C. 1371(a)(5)(D)) and 50 CFR 216.107, to harass marine mammals incidental to pile driving operations off the coast of New Jersey, subject to the following:

1. This Authorization is valid from May 1, 2013 through August 31, 2013.
2. This Authorization is valid for pile driving operations associated with Fishermen's Atlantic City offshore wind farm, as described in the Incidental Harassment Authorization (IHA) application.
3. Fishermen's is hereby authorized to take, by Level B harassment only, 120 bottlenose dolphins (*Tursiops truncatus*), 48 harbor porpoise (*Phocoena phocoena*), and 48 harbor seals (*Phoca vitulina*), incidental to pile driving associated with the Atlantic City offshore wind farm project.
4. The taking by Level A harassment, serious injury, or mortality of any of the species listed in 3 above or the taking of any kind of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this Authorization.
5. The taking of any marine mammal in a manner prohibited under this Authorization must be reported immediately to NMFS' Northeast Region, 55 Great Republic Drive, Gloucester, Massachusetts 01930-2276; phone 978-281-9328; fax 978-281-9394, and NMFS' Office of Protected Resources (NMFS), 1315 East-West Hwy, Silver Spring, MD 20910; phone 301-427-8401; fax 301-713-0376.
6. The holder or designees must notify NMFS' Northeast Region and Headquarters at least 24 hours prior to the seasonal commencement of the specified activity (see contact information in 5 above).
7. Mitigation Requirements

The holder of this Authorization is required to abide by the following mitigation conditions listed in 7(a)-(e). Failure to comply with these conditions may result in the modification, suspension, or revocation of this Authorization.



(a) *Establishment of an Exclusion Zone*: During all impact pile driving, Fishermen's will establish a 1,000-m marine mammal exclusion zone around each pile to avoid exposing marine mammals to sounds at or above 180 dB. The exclusion zone will be monitored continuously during all impact pile driving. If a marine mammal is observed approaching or entering the 1,000-m perimeter, Fishermen's will reduce hammering to 50 percent capacity (or stop hammering) to reduce sound pressure levels and lessen the distance to the 180 dB isopleth. Once underwater sound measurements are taken, the exclusion zone may be adjusted accordingly, with input from NMFS, so that marine mammals are not exposed to Level A harassment sound pressure levels.

(b) *Pile Driving Shut Down and Delay Procedures*: If a marine mammal is observed nearing or within the Level A harassment zone (the 180 dB isopleth) prior to the start of pile driving, the observer will notify the construction manager (or other authorized individual), who will then be required to delay pile driving until the marine mammal has moved outside of the exclusion zone or if the animal has not been resighted within 15 minutes for pinnipeds or 30 minutes for cetaceans. If a marine mammal is sighted approaching or within the exclusion zone during pile driving, operations will be reduced to 50 percent capacity, which will reduce the size of the Level A and Level harassment zones. If an animal continues to approach the reduced Level A harassment zone, pile driving will cease until that animal has cleared and is on a path away from the exclusion zone or 15/30 minutes (pinnipeds/cetaceans) have lapsed since the last sighting.

(c) *Soft-start Procedures*: A "soft-start" technique will be used at the beginning of each pile installation to allow any marine mammal that may be in the immediate area to leave before the pile hammer reaches full energy. Soft starts require an initial set of three strikes from the impact hammer at 40 percent energy, followed by a 1-minute waiting period between subsequent three-strike sets. The soft-start procedure will be conducted prior to driving each pile if hammering ceases for more than 30 minutes. However, if pile driving is delayed or shut down due to the presence of a pinniped within or approaching the Level A harassment zone, soft-start procedures will be implemented when hammering ceases for more than 15 minutes.

8. Monitoring Requirements

The holder of this Authorization is required to abide by the following monitoring conditions listed in 8(a)-(c). Failure to comply with these conditions may result in the modification, suspension, or revocation of this Authorization.

(a) Visual Monitoring

(i) The holder of this Authorization must designate at least two biologically-trained, on-site individual(s), approved in advance by NMFS, to monitor the 1,000-m exclusion zone for marine mammals 30 minutes before, during, and 30 minutes after all impact pile driving activities. The protected species observers shall conduct observations on the

number, type(s), location(s), and behavior(s) of marine mammals in the designated exclusion zone (see Reporting section below).

(ii) Protected species observers must call for delay of pile driving operations if any marine mammal is observed within or approaching the 1,000-m exclusion zone prior to the start of hammering.

(iii) Protected species observers must call for a 50 percent decrease in power if any marine mammal is observed approaching or within the 1,000-m exclusion zone during pile driving operations. If an animal continues to approach the reduced Level A harassment zone, protected species observers must call for shutdown until the animal has left the exclusion zone or 15/30 minutes (pinnipeds/cetaceans) have lapsed since the last sighting.

(iv) Protected species observers will conduct behavioral monitoring of any marine mammals within or around the 1,000-m exclusion zone. This will be done to validate take estimates and evaluate the behavioral impacts pile driving has on marine mammals, particularly within the Level B harassment isopleth.

(v) Protected species observers will be provided with the equipment necessary to effectively monitor for marine mammals and communicate with the construction manager (for example, high-quality binoculars, spotting scopes, compass, range-finder, and radio) in order to determine if animals have entered into the exclusion zone, record species, behaviors, and responses to pile driving, and call for delay, power down, or shut down.

(vi) NMFS must be informed immediately of any changes or deletions to any portions of the monitoring plan, as described in the application.

(b) Hydroacoustic Monitoring

(i) Underwater sound measurements will be taken during the pile driving of the first three jacket foundations to ensure that the exclusion zone is accurate. Exclusion zones and harassment isopleths may be adjusted accordingly for marine mammals, with NMFS input, so that animals are not exposed to Level A harassment sound pressure levels (180 dB).

(ii) Fishermen's will establish one reference location at a distance of 100 m from the sound source. Sound measurements will be taken from the reference location at two depths (one near the middle of the water column and one near the bottom of the water column). Two additional in-water measurements will be taken in two different directions of the pile driving site. Sound measurements will also be recorded 10 m from the sound source, as necessary, to determine the source level and affirm the distances to the Level B and Level A harassment zones. Fishermen's will integrate 90 percent of the energy window from each blow into the sound analysis when computing root mean square (rms) sound pressure levels.

(ii) Persons conducting sound measurements shall coordinate with the pile driver operator and marine mammal observer(s) to determine which activities are occurring at the time measurements are taken and if any marine mammals are in the area.

9. Reporting Requirements

The holder of this Authorization is required to submit a report on all activities and visual and acoustic monitoring results to the Office of Protected Resources, NMFS, and the Northeast Regional Administrator, NMFS, 90 days prior to the expiration of the IHA if a renewal is sought, or within 90 days of completion of pile driving.

a) The visual monitoring report must contain the following information:

- (i) number of marine mammals observed and number taken, by species, and, if possible, sex and age class;
- (ii) marine mammal behavior patterns observed (use classification system consistent with the California Department of Transportation (Caltrans) Richmond Bridge harbor seal survey team, if possible);
- (iii) marine mammal distances to pile driving activities;
- (iv) time pile driving begins and ends and if pile driving was occurring during a sighting;
- (v) time and locations of all marine mammal sightings;
- (vi) environmental conditions, including but not limited to visibility and sea state; and
- (vii) other human activity in the area (e.g., Fishermen's support vessel operation, recreational vessel operation).

b) The acoustic monitoring report must contain the following:

- (i) type of equipment used to collect acoustic data including frequency range;
- (ii) estimated water depth of pile being driven and depth at which measurements were taken;
- (iii) distances to the source where acoustic data were collected;
- (iv) maximum, minimum, and average dB_{RMS} levels received at each measured distance;

(v) estimated rate of attenuation or transmission loss (TL) based on collected measurements; and

(vi) estimated source levels based on TL rate.

c) In the unanticipated event that pile driving activities clearly cause the take of a marine mammal in a manner prohibited by this Authorization, such as an injury (Level A harassment), serious injury, or mortality, Fishermen's shall immediately cease pile driving activities and report the incident to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401 and/or by email to Jolie.Harrison@noaa.gov and Michelle.Magliocca@noaa.gov and the Northeast Regional Stranding Coordinator (Mendy.Garron@noaa.gov). The report must include the following information:

(i) time, date, and location (latitude/longitude) of the incident;

(ii) the name and type of vessel involved;

(iii) the vessel's speed during and leading up to the incident;

(iv) description of the incident;

(v) status of all sound source use in the 24 hours preceding the incident;

(vi) water depth;

(vii) environmental conditions (e.g. wind speed and direction, Beaufort sea state, cloud cover, and visibility);

(viii) description of marine mammal observations in the 24 hours preceding the incident;

(ix) species identification or description of the animal(s) involved;

(x) the fate of the animal(s); and

(xi) and photographs or video footage of the animal (if equipment is available).

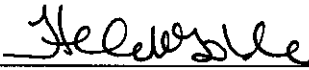
Activities shall not resume until NMFS is able to review the circumstances of the prohibited take. NMFS shall work with Fishermen's to determine what is necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. Fishermen's may not resume their activities until notified by NMFS via letter, email, or telephone.

d) In the event that Fishermen's discovers an injured or dead marine mammal, and the lead protected species 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

described in the next paragraph), Fishermen's will immediately report the incident to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401, and/or by email to Jolie.Harrison@noaa.gov and Michelle.Magliocca@noaa.gov and the Northeast Regional Stranding Coordinator (Mendy.Garron@noaa.gov). The report must include the same information identified in Condition 9(c) above. Activities may continue while NMFS reviews the circumstances of the incident. NMFS will work with Fishermen's to determine whether modifications in the activities are appropriate.

e) In the event that Fishermen's discovers an injured or dead marine mammal, and the lead protected species observer determines that the injury or death is not associated with or related to the activities authorized in Condition 3 of this Authorization (e.g., previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), Fishermen's shall report the incident to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401, and/or by email to Jolie.Harrison@noaa.gov and Michelle.Magliocca@noaa.gov and the Northeast Regional Stranding Coordinator (Mendy.Garron@noaa.gov), within 24 hours of the discovery. Fishermen's shall provide photographs or video footage (if available) or other documentation of the stranded animal sighting to NMFS and the Marine Mammal Stranding Network. Activities may continue while NMFS reviews the circumstances of the incident.

14. A copy of this Authorization must be in the possession of the lead contractor on site and PSOs operating under the authority of this Incidental Harassment Authorization.
15. This Authorization may be modified, suspended, or withdrawn if the Holder fails to abide by the conditions prescribed herein or if the authorized taking is having more than a negligible impact on the species or stock of affected marine mammals.



Helen M. Golde,
Acting Director, Office of Protected Resources,
National Marine Fisheries Service.

JUN 27 2012

Date