



## INCIDENTAL HARASSMENT AUTHORIZATION

The United States Department of the Navy (Navy) 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 a waterfront improvement project at the Portsmouth Naval Shipyard (Shipyard) in Kittery, Maine when adhering to the following terms and conditions.

1. This Incidental Harassment Authorization (IHA) is valid from January 8, 2018 through January 7, 2019. This IHA is valid only for pile driving, extraction, and drilling activities associated with the waterfront improvements project at the Shipyard.
2. General Conditions
  - (a) A copy of this IHA must be in the possession of the Navy, its designees, and work crew personnel operating under the authority of this IHA.
  - (b) The species authorized for taking are the harbor porpoise (*Phocoena phocoena*), gray seal (*Halichoerus grypus*), harbor seal (*Phoca vitulina*), hooded seal (*Cystophora cristata*) and harp seal (*Pagophilus groenlandicus*).
  - (c) The taking, by Level B harassment only, is limited to the species listed in condition 2(b). See Table 1 (attached) for numbers of Level B take authorized.
  - (d) The taking by injury (Level A harassment) is limited to harbor porpoise, gray seal, and harbor seal. See Table 1 for numbers of Level A take authorized.
  - (e) The take by injury, serious injury or death of any harp seal or hooded seal or any taking of any other species not listed in condition 2(b) of marine mammal is prohibited and may result in the modification, suspension, or revocation of this IHA.
  - (f) The Navy shall conduct briefings between construction supervisors and crews, marine mammal monitoring team, and acoustical monitoring team prior to the start of all pile driving activities, and when new personnel join the work, in order to explain responsibilities, communication procedures, marine mammal monitoring protocol, and operational procedures. All personnel working in the project area shall watch the Navy's Marine Species Awareness Training video. An informal guide shall be included with the monitoring plan to aid in identifying species if they are observed in the vicinity of the project area.

3. Mitigation Measures

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



- (a) Time Restriction: For all in-water pile driving activities, the Navy shall operate only during daylight hours.
- (b) Pile driving activities shall not be conducted when weather/observer conditions do not allow for adequate sighting of marine mammals (*e.g.* lack of daylight/fog).
  - (i) In the event of conditions that prevent the visual detection of marine mammals, such as heavy fog, activities with the potential to result in Level A or Level B harassment shall not be initiated. Impact pile driving already underway shall be curtailed, but vibratory driving may continue if driving has already been initiated on a given pile.
  - (ii) Driving of additional piles by any means shall not be allowed until all zones are visible. However, in the event of an unsafe work environment if conditions prevent detection of marine mammals during impact pile driving and the pile currently being driven is not stable enough for activities to cease, impact pile driving may continue to get the single pile to stability.
- (c) Establishment of Shutdown Zones
  - (i) The shutdown zone during impact driving shall extend to 75 m for all authorized species. The shutdown during vibratory driving shall extend to 55 m for all authorized species (See Table 2).
  - (ii) If a marine mammal comes within or approaches the shutdown zone, pile driving operations shall cease. Pile driving operations will restart once the marine mammal is visibly seen leaving the zone or after 15 minutes have passed with no sightings.
  - (iii) For in-water heavy machinery work other than pile driving (using, *e.g.*, standard barges, tug boats), if a marine mammal comes within 10 m, operations shall cease and vessels shall reduce speed to the minimum level required to maintain steerage and safe working conditions.
  - (iv) Shutdown shall occur if a species for which authorization has not been granted or for which the authorized numbers of takes have been met approaches or is observed within the Level B harassment zone. The Navy shall then contact NMFS within 24 hours.
- (d) Establishment of Level A and B Harassment Zones
  - (i) The Level A harassment zone shall extend from the 75 m shutdown zone out to 140 m for harbor porpoise during all impact pile driving activities.
  - (ii) The Level B harassment zones shall extend from the 55m shutdown zone out to 293 m during impact driving activities and from 55 m out to 7.35 km (or maximum distance achieved, if less) during vibratory driving activities (see Table 2).

(e) Use of Soft-Start for Impact Pile Driving

- (i) The project shall utilize soft start techniques for impact pile driving. The Navy shall conduct an initial set of three strikes from the impact hammer at 40 percent energy, followed by a 1-minute waiting period, then two subsequent three strike sets. Soft start shall be required for impact driving at the beginning of the day, and at any time following a cessation of impact pile driving of thirty minutes or longer.

4. Monitoring

The holder of this Authorization is required to conduct visual marine mammal monitoring and acoustic monitoring during pile driving activities.

- (a) Visual Marine Mammal Observation - The Navy shall collect sighting data and behavioral responses to pile driving for marine mammal species observed in the region of activity during the period of activity. Visual monitoring shall include the following:
  - (i) Shutdown and Level A zones shall be monitored during all pile driving activities by one marine mammal observer (MMO) with no other duties or responsibilities on one-third of pile driving days.
  - (ii) Two MMOs shall monitor the Level A, Level B, and shutdown zones during two-thirds of pile-driving days.
  - (iii) Monitoring shall take place from 15 minutes prior to initiation of pile driving activity through 30 minutes post-completion of pile driving activity.
  - (iv) MMOs shall be placed at the best vantage point(s) practicable to monitor for marine mammals.
  - (v) MMOs shall scan the waters within each monitoring zone using big-eye binoculars, hand held binoculars, spotting scopes and visual observation.

Monitoring distances shall be measured with range finders and bearing to animals shall be determined using a compass.

(b) Qualifications for MMOs include:

- (i) Visual acuity in both eyes (correction is permissible) sufficient for discernment of moving targets at the water's surface with ability to estimate target size and distance; use of binoculars may be necessary to correctly identify the target;

- (ii) Experience and ability to conduct field observations and collect data according to assigned protocols (this may include academic experience);
  - (iii) Experience or training in the field identification of marine mammals, including the identification of behaviors;
  - (iv) At least one observer must have prior experience working as an observer;
  - (v) Other observers (that do not have prior experience) may substitute education (undergraduate degree in biological science or related field) or training for experience;
  - (vi) Sufficient training, orientation, or experience with the construction operation to provide for personal safety during observations;
  - (vii) Writing skills sufficient to prepare a report of observations including but not limited to the number and species of marine mammals observed; dates and times when in-water construction activities were conducted; dates and times when in-water construction activities were suspended to avoid potential incidental injury from construction sound of marine mammals observed within a defined shutdown zone; and marine mammal behavior;
  - (viii) and ability to communicate orally, by radio or in person, with project personnel to provide real-time information on marine mammals observed in the area as necessary.
  - (ix) Navy shall submit observer resumes for NMFS approval.
- (c) Hydroacoustic Monitoring: The Navy shall adhere to the NMFS-approved hydroacoustic monitoring plan.
- (i) During Year 2, the Navy shall collect sound intensity data during vibratory installation of 20 sheet piles, impact installation of 4 H-piles, during one day of drilling, and during one day of drilling with concurrent vibratory driving.
  - (ii) A final acoustic monitoring report shall be submitted to NMFS within 30 days of completion of in-water monitoring.

## 5. Reporting

- (a) A draft marine mammal monitoring report shall be submitted to NMFS within 90 days after the completion of pile driving and removal activities or 60 days prior to the issuance of any subsequent IHA for this project, whichever comes first. The report shall include an overall description of work completed, a narrative regarding marine mammal sightings, and associated marine mammal observation data sheets. Specifically, the report shall include.

- (i) Date and time that monitored activity begins or ends;
  - (ii) Sediment characteristics/type;
  - (ii) Construction activities occurring during each observation period;
  - (iii) Weather parameters (*e.g.*, percent cover, visibility);
  - (iv) Water conditions (*e.g.*, sea state, tide state);
  - (v) Species, numbers, and, if possible, sex and age class of marine mammals;
  - (vi) Description of any observable marine mammal behavior patterns, including bearing and direction of travel and distance from pile driving activity;
  - (vii) Distance from pile driving activities to marine mammals and distance from the marine mammals to the observation point;
  - (viii) Locations of all marine mammal observations;
  - (ix) Level A and Level B takes of authorized species including extrapolated total take numbers based on observation of Level B zone on two-thirds of driving days; and
  - (x) Other human activity in the area.
- (b) Reporting injured or dead marine mammals:
- (i) In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a manner prohibited by this IHA, such as serious injury, or mortality, the Navy shall immediately cease the specified activities and report the incident to the Office of Protected Resources (301-427-8401), NMFS, and the Northeast/Greater Atlantic Regional Stranding Coordinator (978-282-8478), NMFS. The report must 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). Activities shall not resume until NMFS is able to review the circumstances of the prohibited take. NMFS shall work with the Navy to determine what measures are necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. The Navy may not resume their activities until notified by NMFS.

(ii) In the event that the Navy 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), the Navy shall immediately report the incident to the Office of Protected Resources, NMFS, and the Northeast/Greater Atlantic Regional Stranding Coordinator, NMFS. The report must include the same information identified in 5(b)(i) of this IHA. Activities may continue while NMFS reviews the circumstances of the incident. NMFS shall work with the Navy to determine whether additional mitigation measures or modifications to the activities are appropriate.

(iii) In the event that the Navy 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), the Navy shall report the incident to the Office of Protected Resources, NMFS, and the Northeast/Greater Atlantic Regional Stranding Coordinator, NMFS, within 24 hours of the discovery. The Navy shall provide photographs or video footage or other documentation of the stranded animal sighting to NMFS.

6. 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  
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National Marine Fisheries Service

JAN 04 2018

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Date

**Table 1. Level A and Level B Authorized Takes for up to 100 Days of Activity**

| Species   | Level B Takes | Level A Takes | Total Level A and Level B Takes |
|---|---------------|---------------|---------------------------------|
| <b>Harbor Porpoise</b><br><i>(Phocoena phocoena)</i>  | 96            | 2             | 98                              |
| <b>Gray Seal</b><br><i>(Halichoerus grypus)</i>       | 25            | 2             | 27                              |
| <b>Harbor Seal</b><br><i>(Phoca vitulina)</i>         | 164           | 4             | 168                             |
| <b>Harp Seal</b><br><i>(Pagophilus groenlandicus)</i> | 5             | 0             | 5                               |
| <b>Hooded Seal</b><br><i>(Cystophora cristata)</i>    | 5             | 0             | 5                               |

**Table 2. Shutdown, Injury and behavioral Harassment Isopleths from Impact and Vibratory Pile Driving**

| Drilling Activity | Shutdown Zone | Level A Harassment Zone | Level B Harassment Zone |
|-------------------|---------------|-------------------------|-------------------------|
| Impact Hammer     | 75 m          | Harbor Porpoise -140 m  | 293 m                   |
| Vibratory Hammer  | 55 m          | --                      | 7.35 km                 |