



## 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 improvements 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 1, 2017 through December 31, 2017. 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 (*Crystphora 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 of harp seal or hooded seal or 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, 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.
  - (g) The Navy may conduct a maximum of 156 days of pile driving activities.



### 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 shall only take place when the shutdown and Level A zones are visible and can be adequately monitored. If conditions (*e.g.*, fog) prevent the visual detection of marine mammals, activities with the potential to result in Level A harassment shall not be initiated. If such conditions arise after the activity has begun, impact pile driving would be halted but vibratory pile driving or extraction would be allowed to continue.
- (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.
  - (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 immediately.
- (d) Establishment of Level A and B Harassment Zones
  - (i) The Level A take zones shall extend from the 75 m shutdown zone out to 340 meters for harbor porpoises during all impact pile driving activities. The Level A zones shall extend from the 75 m shutdown zone out to 155 m for gray and harbor seals during all impact pile driving activities (see Table 2).
  - (ii) The Level B take zones shall extend from the 55m shutdown zone out to 1.58 km during impact driving activities and from 55 m out to 7.35 km 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 any impact driving, including at the beginning of the day, and at any time following a cessation of pile driving of thirty minutes or longer.
- (ii) Whenever there has been downtime of 30 minutes or more without impact driving, the contractor shall initiate impact driving with soft-start procedures described above.

(f) *Visual Marine Mammal Observation*

- (i) Monitoring shall be conducted by marine mammal observers (MMOs) who are trained biologists, with the following minimum qualifications:
  - 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. Sufficient training, orientation, or experience with the construction operation to provide for personal safety during observations;
  - iii. Writing skills sufficient to prepare a report of observations; and
  - iv. 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.
- (ii) Two MMOs shall be in place at the best practicable vantage points. The MMOs shall be separated and spread out, looking in opposite directions across the zones of influence.
- (iii) The MMOs shall have no other construction-related tasks while conducting monitoring and shall be trained on the observation zones, species identification, how to observe, and how to fill out the data sheets by the Navy Natural Resources Manager prior to any pile driving activities.
- (iv) Monitoring of shutdown and Level A zones shall be conducted during all impact driving activity. The Level B zone shall be monitored during two-thirds of all pile-driving days.
- (v) Monitoring shall take place from 15 minutes prior to initiation of pile driving activity through 30 minutes post-completion of pile driving activity. Pre-activity monitoring shall be conducted for 15 minutes to ensure that the shutdown zone is clear of marine mammals, and pile driving may commence when observers have declared the shutdown zone clear of marine mammals.

- (vi) If a marine mammal approaches or enters the shutdown zone, all pile driving activities at that location shall be halted. If pile driving is halted or delayed at a specific location due to the presence of a marine mammal, the activity may not commence or resume until either the animal has voluntarily left and been visually confirmed beyond the shutdown zone or 15 minutes have passed without re-detection of the animal.
- (vii) The individuals shall scan the waters within each monitoring zone activity using big-eye binoculars (25x or equivalent), hand held binoculars (7x) and visual observation.
- (viii) Monitoring distances shall be measured with range finders.
- (ix) Bearing to animals shall be determined using a compass.

#### 4. Monitoring

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

- (a) 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.
- (b) All visual marine mammal information shall be recorded as described in the Monitoring Plan (Section 13.1 of the Application) and include the following:
  - (i) Date and time that monitored activity begins or ends;
  - (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; and
  - (ix) Other human activity in the area.

- (c) The Navy shall implement in situ acoustic monitoring as described in the Acoustic Monitoring Plan (Section 13.2 of Application):
  - (i) The Navy shall collect and evaluate acoustic sound record levels for 10 percent of the pile-driving activities conducted,
  - (ii) The Navy shall initiate acoustic monitoring and submit preliminary findings to NMFS within 45 days of commencement of pile driving activities.

5. Reporting

The holder of this Authorization is required to:

- (a) Submit a draft report on all monitoring conducted under the IHA within 90 calendar days of the completion of marine mammal and acoustic monitoring or sixty days prior to the issuance of any subsequent IHA for this project, whichever comes first. A final report will be prepared and submitted within thirty days following resolution of comments on the draft report from NMFS. This report must contain the informational elements described in the Monitoring Plan at minimum (see attached), and shall also include:
  - (i) Information as described in 4(b);
  - (ii) Results of acoustic monitoring as described in the Monitoring Plan.
- (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 will 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).

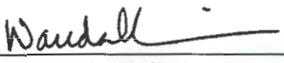
Activities shall not resume until NMFS is able to review the circumstances of the prohibited take. NMFS will work with the Navy to determine what measures are necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. The Navy may not resume their activities until notified 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 will 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 6(b)(i) of this IHA. Activities may continue while NMFS reviews the circumstances of the incident. NMFS will 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 will 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 will 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.

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

16 November 2016  
Date

**Table 1. Level A and Level B Authorized Takes Over 156 Days**

Species	Level B Takes	Level A Takes	Total Level A and Level B Takes
<b>Harbor Porpoise</b> <i>(Phocoena phocoena)</i>	150	10	160
<b>Gray Seal</b> <i>(Halichoerus grypus)</i>	156	2	158
<b>Harbor Seal</b> <i>(Phoca vitulina)</i>	312	4	316
<b>Harp Seal</b> <i>(Pagophilus groenlandicus)</i>	5	0	5
<b>Hooded Seal</b> <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
		Species	Distance (m)	
Impact Hammer	75 m	Harbor porpoise	340 m	1.58 km
		Harbor seal/Gray seal	155 m	
Vibratory Hammer	55 m			7.35 km