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

INCIDENTAL HARASSMENT AUTHORIZATION

The U.S. Navy (Navy), Naval Base Point Loma, California, 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 pier replacement project in San Diego Bay, California.

1. This Incidental Harassment Authorization (IHA) is valid for a period of one year from the date of issuance.

2. This IHA is valid only for pile driving and removal activities associated with the fuel pier replacement project in San Diego Bay, California. Any reference to pile driving in this document is intended to refer to both pile driving and removal, unless otherwise stated.

3. 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 seal (*Phoca vitulina richardii*), California sea lion (*Zalophus californianus*), bottlenose dolphin (*Tursiops truncatus truncatus*), common dolphin (*Delphinus* sp.), and gray whale (*Eschrichtius robustus*).

   (c) The taking, by Level B harassment only, is limited to the species listed in condition 3(b). See Table 1 (attached) for numbers of take authorized.

   (d) The taking by injury (Level A harassment), serious injury, or death of any of the species listed in condition 3(b) of the Authorization 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) The Navy shall conduct briefings between construction supervisors and crews, marine mammal monitoring team, acoustical monitoring team, and Navy staff prior to the start of all pile driving activity, and when new personnel join the work, in order to explain responsibilities, communication procedures, marine mammal monitoring protocol, and operational procedures.

   (f) The Navy may conduct a maximum of 135 days of in-water impact and vibratory pile driving.

4. Mitigation Measures

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

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(a) For all pile driving, the Navy shall implement a minimum shutdown zone of 10 m radius around the pile. If a marine mammal comes within or approaches the shutdown zone, such operations shall cease. See Table 2 (attached) for minimum radial distances required for shutdown zones.

(b) The Navy shall similarly avoid direct interaction with marine mammals during in-water heavy machinery work other than pile driving that may occur in association with the specified activities. If a marine mammal comes within 10 m of such activity, operations shall cease and vessels shall reduce speed to the minimum level required to maintain steerage and safe working conditions, as appropriate.

(c) The Navy shall establish monitoring locations as described below. Please also refer to the Acoustic and Marine Species Monitoring Plan (Monitoring Plan; attached).

(i) For all pile driving activities, a minimum of one observer shall be stationed at the active pile driving rig in order to monitor the shutdown zones.

(ii) For all pile driving activities, three to seven total observers, including those required in 4(c)(i) and (iii), shall be positioned for optimal monitoring of the project site and surrounding waters. This shall also include a minimum of two vessel-based observers. During impact driving of steel piles, observers shall be deployed as necessary for optimal monitoring of the cetacean Level A injury zone (see Table 2). Observers shall also be positioned at the discretion of the Navy for optimal fulfillment of both acoustic monitoring objectives and monitoring of the Level B harassment zone.

(iii) For all impact pile driving activities, a minimum of one shore-based observer shall be located at the pier work site.

(iv) These observers shall record all observations of marine mammals, regardless of distance from the pile being driven, as well as behavior and potential behavioral reactions of the animals. Photographs must be taken of any observed gray whales.

(d) Monitoring shall take place from fifteen minutes prior to initiation of pile driving activity through thirty minutes post-completion of pile driving activity. Pre-activity monitoring shall be conducted for fifteen 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. In the event of a delay or shutdown of activity resulting from marine mammals in the shutdown zone, animals shall be allowed to remain in the shutdown zone (i.e., must leave of their own volition) and their behavior shall be monitored and documented. Monitoring shall occur throughout the time required to drive a pile. The shutdown zone must be determined to be clear during periods of good visibility (i.e., the entire shutdown zone and surrounding waters must be visible to the naked eye).

(e) 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 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 fifteen minutes have passed without re-detection of the animal.

(f) Monitoring shall be conducted by qualified observers, as described in the Monitoring Plan. Trained observers shall be placed from the best vantage point(s) practicable to monitor for marine mammals and implement shutdown or delay procedures when applicable through communication with the equipment operator.

(g) The Navy shall use soft start techniques recommended by NMFS for vibratory and impact pile driving. Soft start for vibratory drivers requires contractors to initiate sound for fifteen seconds at reduced energy followed by a thirty-second waiting period. This procedure is repeated two additional times. Soft start for impact drivers requires contractors to provide an initial set of strikes at reduced energy, followed by a thirty-second waiting period, then two subsequent reduced energy strike sets. Soft start shall be implemented at the start of each day's pile driving and at any time following cessation of pile driving for a period of thirty minutes or longer. Soft start for impact drivers must be implemented at any time following cessation of impact driving for a period of thirty minutes or longer.

(h) Pile driving shall only be conducted during daylight hours.

5. Monitoring

The holder of this Authorization is required to conduct marine mammal monitoring during pile driving activity and to conduct acoustic monitoring of background sound and project activities. Monitoring and reporting shall be conducted in accordance with the Monitoring Plan.

(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. All observers shall be trained in marine mammal identification and behaviors, and shall have no other construction-related tasks while conducting monitoring.

(b) For all marine mammal and acoustic monitoring, information shall be recorded as described in the Monitoring Plan.

(c) The Navy shall conduct acoustic monitoring for representative scenarios of pile driving activity, as described in the Monitoring Plan.

(d) The Navy shall conduct acoustic monitoring of background, or ambient, conditions, as described in the Monitoring Plan. In addition, the Navy shall measure ambient sound levels both to the north and south of the fuel pier site. Similar spatially-distributed methods shall be used for determining sound propagation in the far-field during installation and removal of various types and

sizes of piles to identify the distance at which sound from those activities becomes indistinguishable from ambient.

(e) Measurement of ambient conditions shall occur during three separate recording periods (in agreement with the Monitoring Plan and NMFS' guidance), spaced adequately to capture variation during the notional work window of October-March.

6. Reporting

The holder of this Authorization is required to:

(a) Submit a draft report on all monitoring conducted under the IHA within 45 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 shall 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) Detailed information about any implementation of shutdowns, including the distance of animals to the pile and description of specific actions that ensued and resulting behavior of the animal, if any.

(ii) Description of attempts to distinguish between the number of individual animals taken and the number of incidences of take, such as ability to track groups or individuals.

(iii) Results of acoustic monitoring, including the information described in the Monitoring Plan. In addition, results of acoustic monitoring of ambient conditions shall be reported as the dB rms level that occurs at least 50% of the time (i.e., 50^{th} percentile of cumulative distribution function).

(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 an injury (Level A harassment), serious injury, or mortality, Navy shall immediately cease the specified activities and report the incident to the Office of Protected Resources (301-427-8425), NMFS, and the West Coast Regional Stranding Coordinator for California (562-980-3230), 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 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 Navy to determine what measures are necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. Navy may not resume their activities until notified by NMFS.

(ii) In the event that 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), Navy shall immediately report the incident to the Office of Protected Resources, NMFS, and the West Coast 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 Navy to determine whether additional mitigation measures or modifications to the activities are appropriate.

(iii) In the event that 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), Navy shall report the incident to the Office of Protected Resources, NMFS, and the West Coast Regional Stranding Coordinator, NMFS, within 24 hours of the discovery. Navy shall provide photographs or video footage 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.

Penny Gayaldo

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

OCT - 8 2014

Date

Table 1. Authorized take numbers, by species

Species	Authorized Take
Harbor seal (*Phoca vitulina*)	945
California sea lion (*Zalophus californianus*)	23,625
Bottlenose dolphin (*Tursiops truncatus*)	405
Common dolphin (*Delphinus* sp.)	810
Gray whale (*Eschrichtius robustus*)	90

Table 2. Minimum radial distance to shutdown zones

Activity	Distance to threshold in meters			
	190 dB	180 dB	160 dB	120 dB
Impact driving, steel piles	75	450	2,500	n/a
Vibratory driving, steel piles	10	10	n/a	3,000