



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

AUG 12 2009

Mr. Jeffrey Jensen
Chief, Office of Biological Science and Permits
State of California Department of Transportation
P.O. Box 23660
Oakland, California 94623-0660

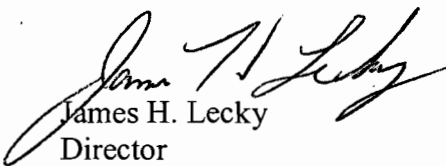
Dear Mr. Jensen:

Enclosed is an Incidental Harassment Authorization issued to the California Department of Transportation, under the authority of 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 East Span of the San Francisco-Oakland Bay Bridge, San Francisco Bay, California.

You are required to comply with the conditions contained in this Authorization. In addition, you must cooperate with any Federal, State or local agency monitoring the impacts of your activities. The Authorization requires monitoring the presence of marine mammals, mitigating adverse impacts to the lowest level practicable, and reporting any behavioral modifications resulting from your activity as observed by qualified individuals.

If you have any questions concerning the Authorization or its requirements, please contact Monica DeAngelis, Southwest Regional Office, National Marine Fisheries Service (NMFS) at (562) 980-3232, or Shane Guan, Office of Protected Resources, NMFS, at (301) 713-2289, ext 137.

Sincerely,


James H. Lecky
Director
Office of Protected Resources

Enclosure



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

The California Department of Transportation (CALTRANS) 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 take, incidentally by Level B harassment, small numbers of marine mammals incidental to construction of a replacement bridge for the East Span of the San Francisco-Oakland Bay Bridge (SF-OBB), California:

1. This Authorization is valid from August 14, 2009 until August 13, 2010.
2. This Authorization is valid only for activities involving the construction of the East Span of SF-OBB, California.
3. Species Impacted and Level of Takes
 - (a) The taking, by incidental Level B harassment only, is limited to the species listed under condition 3(b) below. The taking by serious injury or death of these species, or the taking by harassment, injury or death of any other species of marine mammal is prohibited and may result in the modification, suspension or revocation of this Authorization.
 - (b) The species authorized for takings by incidental harassment are the California sea lion (*Zalophus californianus*), Pacific harbor seal (*Phoca vitulina richardsi*), harbor porpoise (*Phocoena phocoena*), and gray whale (*Eschrichtius robustus*).
 - (c) The taking of any marine mammal in a manner prohibited under this Authorization must be reported within 48 hours of the taking to the Director, Southwest Regional Office, National Marine Fisheries Service, Telephone (562) 980-4000 and the Director, Office of Protected Resources, National Marine Fisheries Service, Telephone (301) 713-2332.
4. The holder of this Authorization is required to cooperate with the National Marine Fisheries Service and any other Federal, state or local agency monitoring the impacts of the activity on marine mammals. The holder must notify Monica DeAngelis of the Southwest Regional Office (562-980-3232) at least 24 hours prior to starting activities (unless constrained by the date of issuance of this Authorization).



5. Mitigation Requirements

The holder of this authorization must:

- (a) Comply with equipment noise standards of the U.S. Environmental Protection Agency and ensure that all construction equipment has noise control devices no less effective than those provided on the original equipment.
- (b) Conduct briefings between construction supervisors and crews, marine mammal monitoring team, acoustical monitoring team, and CALTRANS staff prior to the start of all pile-driving activity, and when new personnel join the work, that explain responsibilities, communication procedures, marine mammal monitoring protocol, and operational procedures.
- (c) For all in-water permanent pile-driving, establish a preliminary marine mammal safety zone of 500 meters (1,640 feet) around each of the pile-driving sites before pile driving commences. Once pile-driving commences, either retain the 500-m (1,640 ft) marine mammal safety zone or use acoustical monitoring data (see "Monitoring Requirements") to determine the radii at which underwater sound pressure levels are anticipated to equal or exceed 180 dB re 1 $\mu\text{Pa}_{\text{rms}}$ for harbor porpoises and/or gray whales, and 190 dB re 1 $\mu\text{Pa}_{\text{rms}}$ for California sea lions and/or harbor seals.
- (d) If marine mammals are visually sighted within the safety zone(s) prior to start of pile-driving, the Resident Engineer (or other authorized individual) is required to delay pile-driving of the segment until the harbor porpoises and/or gray whales have moved beyond the 180 dB re 1 $\mu\text{Pa}_{\text{rms}}$ safety zone, or seals and/or sea lions have moved beyond the 190 dB re 1 $\mu\text{Pa}_{\text{rms}}$ safety zone. Verification may be conducted either through sighting by a qualified observer or by waiting until enough time has elapsed without a sighting (at least 15 minutes) to assume the animal has moved beyond the safety zone.
- (e) If marine mammals are sighted within the safety zone(s) after pile-driving has begun, have a qualified marine mammal observer record the species, numbers and behaviors of the animal(s) and report to Monica DeAngelis at the Southwest Regional Office, National Marine Fisheries Service, phone (562-980-3232) within 48 hours of the sighting.
- (f) The holder of this Authorization shall require the contractor(s) to "soft-start" impact and vibratory pile driving operations.

6. Monitoring Requirements

(a) General.

- (1) The holder of this Authorization must designate a minimum of three biologically-trained, on-site individual(s), approved in advance by the National

Marine Fisheries Service's Southwest Regional Office, to monitor the area for marine mammals before, during, and after pile driving activities from boats.

(2) The National Marine Fisheries Service must be informed immediately of any changes or deletions to any portions of the monitoring plan in accordance with condition 7(a) of this Authorization.

(b) Visual Monitoring

(1) For all in-water permanent pile-driving one three-person observer team must visually monitor each pile-driving site. When multiple sites are in operation, more than one observer team must be utilized from boats.

(2) **Pre-Activity Monitoring:** At least 30 minutes prior to the start of all in-water permanent pile-driving segments, marine mammal monitor(s) must conduct observations on the number, type(s), location(s), and behaviors of marine mammals in the designated safety zones and buffer zones, as well as other areas near pile driving sites. If the time between pile-segment driving is less than 30 minutes, a new 30-minute survey is unnecessary provided marine mammal monitors continue observations during the interruption. If pile driving ceases for 30 minutes or more and a marine mammal is sighted within the designated safety zone(s) prior to the commencement of pile-driving, the observer(s) must notify the Resident Engineer (or other authorized individual) immediately (see condition 5(e)).

(3) **Monitoring during Activity:** During all in-water permanent pile-driving marine mammal monitor(s) shall conduct and record observations on marine mammals in the vicinity of the pile driving sites and pay particular attention to designated safety zones.

(4) **Post-Activity Monitoring:** For a minimum of 30 minutes after in-water permanent pile-driving stops, marine mammal monitor(s) shall conduct observations of the project area and record information on the number, type(s), location(s), and behavior of marine mammals and pay attention to designated safety zones.

(5) **Monitoring on Yerba Buena Island Haul-out:** The holder of this authorization shall coordinate with the Richmond Bridge harbor seal survey team to collect observational data from Yerba Buena Island twice a week during in-water pile-driving activity.

(6) **Monitoring under Low Light Condition:** In late afternoon and/or early evening when light condition is low, marine mammal monitor(s) shall use infrared (IR) scopes to conduct observation of the project area.

(7) Monitoring at Control Site(s): At least one appropriate control site (i.e., harbor seal haul-out site(s) not impacted by the East Span project) must be designated and monitored twice a week during periods of in-water pile-driving.

(8) During the baseline monitoring period and activity monitoring periods, qualified visual observers must record the following information:

- (i) Date and time that pile-driving begins or ends;
- (ii) Weather parameters;
- (iii) Tide state and water currents;
- (iv) Visibility;
- (v) Species, numbers, and, if possible, sex and age class, of marine mammals;
- (vi) Marine mammal behavior patterns observed consistent with classification system used by the Richmond Bridge harbor seal survey team;
- (vii) Distance from pile-driving activities to marine mammals;
- (viii) Locations of all marine mammal observations; and
- (ix) Other human activity in the area.

(c) Acoustic Monitoring

(1) As soon as in-water pile-driving commences, underwater sound measurements must be collected to determine the relative effectiveness of the safety zones at attenuating noise underwater.

(2) As soon as in-water pile-driving commences, underwater sound measurements must be collected to determine the 190 dB re 1 $\mu\text{Pa}_{\text{rms}}$ and 180 dB re 1 $\mu\text{Pa}_{\text{rms}}$ safety zones around each in-water permanent pile-driving site. A written report on the sound measurements collected and analyzed to determine the safety zones around each in-water, permanent pile-driving site must be completed and submitted to the Southwest Regional Office and the Office of Protected Resources, National Marine Fisheries Service.

(3) All acoustic monitoring systems must be regularly calibrated and field-verified. Instruments that cannot be field-verified must be annually certified.

7. Reporting

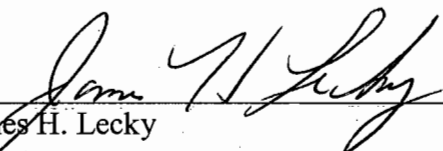
(a) Once the baseline monitoring period begins the holder of this Authorization must consult once a week by telephone or e-mail with Monica DeAngelis, or her designee, at the Southwest Regional Office, National Marine Fisheries Service (562-980-3232), providing a status report on the appropriate reporting items found under condition 7(b), unless other arrangements for monitoring reports are agreed to in writing.

(b) A written report on the sound measurements collected and analyzed to determine the effectiveness of the safety zones at attenuating noise underwater must be completed and submitted to the Southwest Regional Office and the Office of Protected Resources, National Marine Fisheries Service by November 1, 2010.

(c) A report on all activities must be submitted to the Southwest Regional Office and the Office of Protected Resources, National Marine Fisheries Service, within 90 days after completion of the activities. This report must contain the following information:

- (1) Dates and types of activities;
- (2) The results of the visual monitoring program, including all items identified in Section 6(b)(8); and
- (3) Results of the acoustic monitoring program.

8. A copy of this Authorization must be in the possession of all contractors and marine mammal monitors operating under the authority of this Incidental Harassment Authorization.



James H. Lecky
Director
Office of Protected Resources
National Marine Fisheries Service

AUG 12 2009
Date