



MARINE MAMMAL COMMISSION

4 February 2011

Mr. P. Michael Payne, Chief
Permits, Conservation, and Education Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3225

Dear Mr. Payne:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the National Marine Fisheries Service's proposed rule published in the 21 December 2010 *Federal Register* (75 Fed. Reg. 80260) and the application from Neptune LNG LLC seeking authorization to take marine mammals under section 101(a)(5)(A) of the Marine Mammal Protection Act. The authorization would be in effect from July 2011 through July 2016. The applicant proposes to take small numbers of various species of pinnipeds and cetaceans, including North Atlantic right whales, incidental to commissioning, operation, and maintenance and repair of its offshore liquefied natural gas facility, Neptune Deepwater Port. The facility is in Massachusetts Bay and has been under development for several years. The Marine Mammal Commission previously commented on similar incidental harassment authorizations for this project.

RECOMMENDATIONS

The Marine Mammal Commission recommends that the National Marine Fisheries Service issue the final rule, provided that it—

- (1) allows additional opportunity for public review and comment before publication of a final rule if the recalculated takes or zones in which takes might occur are significantly greater than those described in the proposed rule, or (2) if it determines that additional notice and opportunity to comment are not needed, it ensures the revised estimates of the zones of exposure and anticipated takes for each of the three proposed activities are provided in the final rule together with the rationale for not providing an additional opportunity for public review and comment;
- adopts a consistent requirement that mitigation zones be clear of all species of marine mammals for 30 minutes before initiation or resumption of activities;
- requires that visibility also be at least 1 km before maintenance and repair activities can proceed or provide a reasoned basis for allowing these activities under poorer visibility;
- (1) requires that protected species observers monitor continuously for the presence of marine mammals when activities occur during daylight hours, and (2) either prohibits nighttime operations or adopts measures that it can demonstrate to be reliable for detecting all marine mammals within the specified mitigation zones under nighttime conditions; and
- includes in its final rule an analysis evaluating the impact of the proposed operations together with the cumulative impacts of all the other pertinent risk factors affecting right whales and other marine mammals that occur in the port area and explains why it believes that the combined impact would be negligible.

RATIONALE

The National Marine Fisheries Service proposes to authorize the taking of individuals of 14 marine mammal species by Level B harassment incidental to port commissioning, operation, and maintenance and repair. All anticipated takes would result from the use of thrusters during dynamic positioning of shuttle and regasification vessels while docking and undocking, maintenance and repair activities, and the occasional weathervaning of vessels at the port (i.e., maintaining a vessel's position relative to a mooring). The Service does not propose to authorize taking by Level A harassment as it does not expect any of the takes to result in serious injury or death of a marine mammal. The Service preliminarily has determined that the total taking would have a negligible impact on the affected species and stocks based on the proposed mitigation and monitoring measures.

Zones of Exposure and Takes

Before issuing regulations under section 101(a)(5)(A), the Service must conclude that the proposed activity will have a negligible impact on the affected marine mammal species or stocks and that only small numbers of marine mammals would be taken incidentally. When estimating potential marine mammal takes from discrete sound sources, the Service considers the source levels, the zones of exposure at various sound thresholds, and site-specific densities of marine mammals within those zones.

There are two problems with the information used by the Service in the *Federal Register* notice to derive take estimates. First, when estimating the number of takes, the Service used ranges and areas it associated with the 120-dB isopleth for sounds from the dynamic positioning of vessels and maintenance and repair activities. However, those ranges and areas are smaller than those derived from in-situ measurements and incorporated into models in Neptune's application. Thus, the Service appears to have underestimated the zones of exposure in which taking would occur.

Second, to estimate marine mammal densities, the Service appropriately used more comprehensive distribution and sightings data from the National Oceanic and Atmospheric Administration's National Centers for Coastal Ocean Science (2006), rather than using only the sources identified by Neptune. However, in its calculations, the Service used a hypothetical strip width larger than the strip width identified in the Centers' report. As a result, the Service's estimates of marine mammal density in the project area likely are overestimates. In addition, in its *Federal Register* notice the Service omitted the expected zones of exposure and estimates of associated takes for weathervaning.

Because of these shortcomings, the predicted zones of exposure and estimated takes for each of the activities either are incorrect or absent in the proposed rule. These issues have been discussed with the Service, which has committed to correcting the errors and omissions in the final rule. However, the Commission is concerned that the presence of these errors and omissions in the proposed rule may have compromised the public's opportunity to comment meaningfully on the proposed authorization. Without seeing the new analyses, it is difficult to know whether the final

rule, if issued, will differ significantly enough from the proposed rule that an additional opportunity for public review and comment should be provided. Therefore, the Marine Mammal Commission recommends that the National Marine Fisheries Service allow for an additional opportunity for public review and comment before publication of a final rule if the recalculated takes or zones in which takes might occur are significantly greater than those described in the proposed rule. If the Service determines that additional notice and opportunity to comment are not needed, the Marine Mammal Commission recommends that the National Marine Fisheries Service ensure that the revised estimates of the zones of exposure and anticipated takes for each of the three proposed activities are provided in the final rule, together with the rationale for not providing an additional opportunity for public review and comment.

Mitigation and Monitoring Measures

Both the application and *Federal Register* notice state that certain activities (e.g., repair) would resume following a marine mammal sighting once the marine mammal is confirmed to have moved outside the mitigation zone. The documents also state that if the marine mammal is not resighted and its departure from the area cannot be confirmed, activities will not be initiated or resumed until the mitigation zone is clear of North Atlantic right whales for 30 minutes. No similar clearance time is specified for other species of marine mammals. To address that shortcoming, the Marine Mammal Commission recommends that the National Marine Fisheries Service adopt a consistent requirement that mitigation zones be clear of all species of marine mammals for 30 minutes before initiation or resumption of activities.

The proposed rule uses 1 km as the radius of the area that must be visible to observers before most activities (e.g., dynamic positioning of vessel and weathervaning) can proceed. However, for repair and maintenance activities—which have a larger zone of exposure—the proposed rule indicates that the visibility radius need only be 0.8 km. The basis for allowing this reduced visibility is not clear. The Marine Mammal Commission therefore recommends that the National Marine Fisheries Service require that visibility also be at least 1 km before maintenance and repair activities can proceed or provide a reasoned basis for allowing these activities under poorer visibility.

The Commission also questions whether the planned visual monitoring is adequate for mitigation purposes. Its concern is as follows. The proposed rule specifies that protected species observers would conduct visual monitoring for 40 minutes each hour, beginning at daybreak. Presumably, visual monitoring would not occur during the remaining 20 minutes of each hour or at night. (Neither the application nor the *Federal Register* notice specifies when visual monitoring would end each day or if nighttime activities would occur, but the final rule should be explicit on this point.) As a result, mitigation during those 20-minute breaks and at night would depend entirely on passive acoustic monitoring. Passive acoustic monitoring does not provide location information with sufficient precision to be used as the sole basis for mitigation. If the port operates 24 hours a day, then in a season with 12 hours of daily sunlight, observers would be on watch for a total of 8 hours only—that is, during one-third of operations. In essence, the Service's approach implies that visual

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monitoring is necessary for mitigation purposes only at certain times, and the Commission does not see the basis for that conclusion. To address that concern, the Marine Mammal Commission recommends that the National Marine Fisheries Service (1) require that protected species observers monitor continuously for the presence of marine mammals when activities occur during daylight hours, and (2) either prohibit nighttime operations or adopt measures that it can demonstrate to be reliable for detecting all marine mammals within the specified mitigation zones under nighttime conditions.

Cumulative Effects

The Commission recognizes that the potential cumulative impact of the proposed activities on marine mammals has been examined in previous analyses conducted under the National Environmental Policy Act and the Endangered Species Act. Nonetheless, the Commission believes that the Service's determination under the Marine Mammal Protection Act that these activities will have a negligible impact on marine mammal species and stocks also needs to take into account possible cumulative effects. That is, the significance of incidental takes of a species during a particular operation must be judged based not only on the impact of that operation but also on the species' vulnerability to those takes. The species' vulnerability depends, in part, on the additional impact of other existing operations. For example, the Service has extensive information on other factors that may affect North Atlantic right whales—the species of most concern in this area. With that information, the Service should be striving to analyze, not just the isolated impact of the Neptune port, but also the combined impact of the Neptune port and other risk factors. Unless such an analysis is done, the Service could continue indefinitely to grant incidental take authorizations for individual activities that, by themselves, have a negligible impact even though the combined total of all impacts might significantly impede a species' recovery or contribute to its further decline. With that concern in mind, the Marine Mammal Commission recommends that that National Marine Fisheries Service include in its final rule an analysis evaluating the impact of the proposed operations together with the cumulative impacts of all the other pertinent risk factors affecting right whales and other marine mammals that occur in the port area and explain why it believes that the combined impacts would be negligible.

The Commission hopes you find these recommendations and comments helpful. Please contact me if you have questions concerning them.

Sincerely,



Timothy J. Ragen, Ph.D.
Executive Director

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Literature Cited

National Oceanic and Atmospheric Administration's National Centers for Coastal Ocean Science. 2006. An ecological characterization of the Stellwagen Bank National Marine Sanctuary Region: Oceanographic, biogeographic, and contaminants assessment. Prepared by the Centers' Biogeography Team in cooperation with the National Marine Sanctuary Program. Silver Spring, MD. NOAA Technical Memorandum NOS NCCOS 45. 356 pp.