

MARINE MAMMAL COMMISSION
4340 EAST-WEST HIGHWAY, ROOM 700
BETHESDA, MD 20814-4447

8 June 2009

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 application from Neptune LNG, LLC, seeking an incidental harassment authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act. The applicant is requesting a one-year authorization to harass small numbers of various species of seals, toothed whales, and baleen whales, including North Atlantic right whales, incidental to the *construction and operation of an offshore liquefied natural gas (LNG) port in Massachusetts Bay*. The Commission also has reviewed the National Marine Fisheries Service's 8 May 2009 *Federal Register* notice (74 Fed. Reg. 21648) soliciting comments on the application. On 20 March 2008 the Commission provided comments (copy enclosed) on the initial application and on the Service's notice of intent to promulgate regulations under section 101(a)(5)(A) of the Act to authorize the take of marine mammals incidental to operation and maintenance of the port over a five-year period. The Service issued an incidental harassment authorization for construction of the port in June 2008, which is effective through June 2009. The proposed authorization, if issued, would cover activities for an additional year, through completion of construction and, possibly, initial operation of the port. The Commission offers the following recommendations and rationale regarding the current application.

RECOMMENDATION

The Marine Mammal Commission recommends that the National Marine Fisheries Service issue the requested incidental harassment authorization, subject to the mitigation, monitoring, and reporting measures identified in the *Federal Register* notice.

RATIONALE

The *Federal Register* notice states that port and pipeline construction will generate noise exceeding 120 dB re 1 μ Pa (rms), with the loudest source being vessel thrusters used for dynamic positioning. During construction activities in 2008 and 2009, the supply vessel will have made approximately 51 round trips, and the crew and survey vessel will have made approximately 360 round trips for a combined total of 411 round trips or 822 transits. The applicant expects *construction to be completed in September 2009, but port operations likely would not begin until the spring of 2010 at the earliest*. The proposed incidental authorization, if issued, would cover construction activities in 2009–2010 and initial operation of the port in 2010. Once the port is operational, additional vessels will be employed, thereby generating additional noise during

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regasification of liquefied natural gas and positioning with vessel thrusters. These vessels would make relatively few trips in the early stages of operation but are expected to increase to 50 round trips annually to provide a continuous supply of natural gas to the pipeline when in full operation. This means 100 transits annually or an average of one transit every 3.65 days.

The Service expects that, at most, the noise from these vessels and port operations would cause local, short-term displacements of some marine mammals, with no more than a negligible impact on any individual animal or stock. The Service also concludes that the implementation of the proposed mitigation measures (i.e., visual observations and passive acoustic monitoring) would ensure that no marine mammals would be injured or killed by vessel traffic or other activities. Based on that conclusion, the Service is not planning to authorize any such injury or mortality.

The Marine Mammal Commission concurs with the Service's preliminary assessment, in large part because of the measures that the Service and the applicant intend to implement to mitigate the risk of ships colliding with North Atlantic right whales and other cetacean species. As described in the *Federal Register* notice, such measures include the following:

- all construction vessels of 300 gross tons or greater will operate at speeds of 10 knots or less and vessels of less than 300 gross tons carrying supplies or crew between shore and the construction site must contact the appropriate authority or the construction site before leaving shore to check for reports of recent right whale sightings and, consistent with navigation safety, restrict speeds to 10 knots or less within five miles of the location of any recent right whale sighting;
- vessels transiting through the Cape Cod Canal and Cape Cod Bay between 1 January and 15 May will reduce speeds to 10 knots or less, follow the recommended routes charted by the National Oceanic and Atmospheric Administration to reduce risks to right whales from shipping traffic, and avoid aggregations of right whales in the eastern portion of Cape Cod Bay; and
- construction and support vessels will transit at speeds of 10 knots or less in the following areas and seasons; the southeast U.S. seasonal management area from 15 November through 15 April; the mid-Atlantic seasonal management area from 1 November through 30 April; the Cape Cod Bay seasonal management area from 1 January through 15 May; the Off Race Point seasonal management area year-round; and the Great South Channel seasonal management area from 1 April through 31 July.

In addition, the *Federal Register* notice states that two National Marine Fisheries Service-approved observers would be onboard all onsite construction vessels to detect marine mammals and sea turtles present within 0.8 km (one-half mile) of work sites during daylight hours. If a right whale were to approach within 457 m (500 yd) of the construction vessel, or if any other cetacean or sea turtle were to approach within 91 m (100 yd) of the vessel, all activities emitting noise with a source level greater than 120 dB would be suspended until visual sightings confirmed that the animals had moved beyond those distances. The *Federal Register* notice also states that an autonomous, near-real-time passive acoustic monitoring system with six buoys would be operated at all times during

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construction to supplement visual monitoring efforts. The passive acoustic monitoring system would remain in place for five years to monitor the actual acoustic output of port operations and to alert the Service to any unanticipated adverse effects of port operations, such as large-scale abandonment of the area by right whales or other marine mammals or greater acoustic impacts than has been predicted through modeling. Finally, the notice indicates that weekly reports on marine mammal mitigation efforts would be provided to the Service throughout the construction phase.

In light of these measures, the Marine Mammal Commission recommends that the National Marine Fisheries Service issue the requested incidental harassment authorization, subject to the mitigation, monitoring, and reporting measures identified in the *Federal Register* notice.

Please contact me if you have questions concerning our comments or recommendation.

Sincerely,

Handwritten signature of Timothy J. Ragen in black ink.

Timothy J. Ragen, Ph.D.
Executive Director

Enclosure

Marine Mammal Commission
4340 East-West Highway, Room 700
Bethesda, MD 20814-4447

20 March 2008

Mr. P. Michael Payne
Chief, Permits Division
National Marine Fisheries Service
Office of Protected Resources
1315 East-West Highway, Room 13635
Silver Spring, MD 20910

Dear Mr. Payne:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the application from Neptune LNG, LLC, seeking an incidental harassment authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act. The applicant is requesting a one-year authorization to harass small numbers of various species of seals, toothed whales, and baleen whales, including North Atlantic right whales, incidental to the construction and operation of an offshore liquefied natural gas (LNG) facility in Massachusetts Bay. The Commission also has reviewed the National Marine Fisheries Service's 19 February 2008 *Federal Register* notice soliciting comments on the application and on its intent to promulgate regulations under section 101(a)(5)(A) of the Act, which would authorize the take of marine mammals incidental to specified activities for a five-year period. Based on its review, the Commission offers the following recommendations and rationale.

RECOMMENDATIONS

Based on the information in the application and the *Federal Register* notice, the Marine Mammal Commission recommends that the National Marine Fisheries Service issue the requested incidental harassment authorization provided that all mitigation, monitoring, and reporting measures identified in the *Federal Register* notice are included in the authorization. The Commission also recommends that (1) the Service condition the authorization to postpone the onset of construction in Massachusetts Bay in 2009 until June 1 and require passive acoustic monitoring at all times, and (2) the Service reevaluate the numbers of animals likely to be taken incidentally to the covered activities (as the Service has proposed in the *Federal Register* notice).

RATIONALE

In its preliminary determination, the Service concluded that the impact of construction of the proposed facility would result, at most, in temporary behavioral modifications of small numbers of marine mammals that are in close proximity to the activity. Such impacts would result from noise, principally from use of positioning thrusters on construction barges and tankers carrying liquefied natural gas. The Service expects such effects to cause a local, short-term displacement of some marine mammals with no more than a negligible impact on any individual animals or stocks. Given the identified mitigation measures, the Service also expects that no marine mammals will be injured or killed as a result of vessel traffic or other activities, and no authorizations for such effects are being sought. Also, the identified mitigation measures should result in relatively low noise levels and

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a small zone of impact; thus, the Service has preliminarily determined that the potential for temporary or permanent hearing impairment of any marine mammals is negligible. With several caveats, the Marine Mammal Commission concurs with this assessment and recommends that the National Marine Fisheries Service issue the requested incidental harassment authorization provided that all mitigation, monitoring, and reporting measures identified in the *Federal Register* notice are included in the authorization.

The North Atlantic right whale is the species at greatest risk from the proposed project. The Service's *Federal Register* notice states that, to minimize potential impact on this species, construction work is scheduled to take place over seven months between 29 June 2008 and 28 June 2009. During this period, construction activities would not occur from December 2008 through April 2009, and would resume on 1 May 2009. We note, however, that the Service has proposed vessel speed limits in this area from 1 January to 15 May, indicating that whales may be present into the middle of May. If that is the case, then, given the highly endangered status of the North Atlantic right whale, the Marine Mammal Commission recommends that the Service postpone the beginning of construction activities in 2009 until 1 June, which allows a two-week buffer to increase the likelihood that all whales have left the area.

The *Federal Register* also states that two National Marine Fisheries Service-approved observers would be onboard all onsite construction vessels to detect marine mammals and sea turtles present within 0.8 km (one-half mile) of work sites during daylight hours. If a right whale were to approach within 457 m (500 yd) of the construction vessel, or if any other cetacean or sea turtle were to approach within 91 m (100 yd) of the vessel, all activities emitting noise with a source level greater than 120 dB would be suspended until visual sightings confirmed that the animals had moved beyond those distances. The *Federal Register* notice states that the applicant also will install an autonomous, near-real-time passive acoustic monitoring system with six buoys to detect and generally locate vocalizing cetaceans relative to construction-related sound. Finally, the notice indicates that weekly reports on marine mammal mitigation efforts would be provided to the Service throughout the construction phase.

We note, however, that construction and operational activities producing loud noises could occur at night and under poor sighting conditions when visual detection of animals would be impaired. Even under good sighting conditions, observers are unlikely to see all whales or protected species in the immediate vicinity of the construction site. Passive acoustic detection of vocalizing animals in the immediate vicinity of operations provides an additional, albeit limited, means of detection. Therefore, the Commission recommends that a real-time passive acoustic array be used at all times during the construction period as a supplement to visual monitoring efforts.

In addition to potential impacts related to noise, construction and operation of the facility would increase the number of vessels transiting coastal waters, thereby increasing the risk of ships colliding with North Atlantic right whales and other cetacean species. The *Federal Register* notice identifies several measures intended to mitigate collision risks. Those measures will require that—

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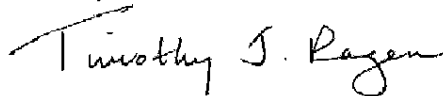
- all construction vessels of 300 gross tons or greater maintain a speed of 10 knots or less and vessels less than 300 gross tons carrying supplies or crew between shore and the construction site must contact the appropriate authority or the construction site before leaving shore for reports of recent right whale sightings and, consistent with navigation safety, restrict speeds to 10 knots or less within five miles of any recent right whale sighting location;
- vessels transiting through the Cape Cod Canal and Cape Cod Bay between 1 January and 15 May reduce speeds to 10 knots or less, follow the recommended routes charted by the National Oceanic and Atmospheric Administration to reduce interactions between right whales and shipping traffic, and avoid aggregations of right whales in the eastern portion of the Cape Cod Bay;
- in the event that the canal is closed during construction, barges must transit around Cape Cod following the Boston Traffic Separation Scheme and comply with all measures in place for the shuttle and regasification vessels when transiting to the port; and
- construction and support vessels transit at 10 knots or less in the following areas and seasons: the southeast U.S. seasonal management area from 15 November through 15 April; the mid-Atlantic seasonal management area from 1 November through 30 April; the Cape Cod Bay seasonal management area from 1 January through 15 May; the Off Race Point seasonal management area year-round; and the Great South Channel seasonal management area from 1 April through 31 July.

The Commission concurs with these proposed measures to mitigate the risk of collision with North Atlantic right whales and other cetacean species.

Finally, the Service's *Federal Register* notice states that "[b]ased on weekly construction reports submitted to NMFS by another LNG facility in Massachusetts Bay, the take levels requested by Neptune seem a bit low. It is likely, based on the observer data and further analysis, that the numbers that would be authorized in the final IHA may be slightly higher than those in this notice of proposed IHA." This being the case, the Marine Mammal Commission concurs with the Service's proposal and recommends that the Service reanalyze marine mammal density in the area, the area to be ensonified to 160 dB, and the number of days that construction activities will occur to derive more accurate estimates of the numbers of marine mammals likely to be taken incidental to construction and operation.

Please contact me if you have questions concerning our comments or recommendations.

Sincerely,



Timothy J. Ragen, Ph.D.
Executive Director