

Dated: May 4, 2009.

**Helen M. Golde,**

*Deputy Director, Office of Protected Resources, National Marine Fisheries Service.*  
[FR Doc. E9-10821 Filed 5-7-09; 8:45 am]

BILLING CODE 3510-22-S

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

RIN 0648-XO92

#### Notice of Availability of the Marine Mammal Health and Stranding Response Program Record of Decision

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice of Availability (NOA) of Record of Decision.

**SUMMARY:** The National Marine Fisheries Service (NMFS) announces the availability of the Record of Decision (ROD) for the Marine Mammal Health and Stranding Response Program (MMHSRP). This ROD announces NMFS' decisions for implementing the MMHSRP. Pursuant to the National Environmental Policy Act (NEPA) and implementing regulations, NMFS prepared a Programmatic Environmental Impact Statement (PEIS) that evaluated the potential environmental and socioeconomic effects associated with alternatives for the MMHSRP's activities.

**ADDRESSES:** Comments or questions regarding the ROD can be sent to David Cottingham, Chief, Marine Mammal and Sea Turtle Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Room 13635, Silver Spring, MD 20910.

**FOR FURTHER INFORMATION CONTACT:** Sarah Howlett, Fishery Biologist, NMFS, at (301) 713-2322; facsimile at (301) 427-2522.

**SUPPLEMENTARY INFORMATION:** A copy of the ROD and the Final PEIS are available at: <http://www.nmfs.noaa.gov/pr/health/eis.htm>.

Dated: May 1, 2009.

**Katy M. Vincent,**

*Acting Deputy Director, Office of Protected Resources, National Marine Fisheries Service.*  
[FR Doc. E9-10676 Filed 5-7-09; 8:45 am]

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## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

RIN 0648-XO84

#### Small Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Construction and Operation of a Liquefied Natural Gas Facility off Massachusetts

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice; proposed incidental harassment authorization; request for comments and information.

**SUMMARY:** NMFS received an application from Neptune LNG, L.L.C. (Neptune) for take of marine mammals, by Level B harassment, incidental to construction and operation of an offshore liquefied natural gas (LNG) facility in Massachusetts Bay. Under the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to issue an incidental harassment authorization (IHA) to Neptune to incidentally take, by harassment, small numbers of several species of marine mammals during construction and operations of the LNG facility for a period of 1 year.

**DATES:** Comments and information must be received no later than June 8, 2009.

**ADDRESSES:** Written comments on the application should be addressed to: 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. The mailbox address for providing email comments is [PR1.0648-XO84@noaa.gov](mailto:PR1.0648-XO84@noaa.gov). Comments sent via email, including all attachments, must not exceed a 10-megabyte file size. A copy of the application containing a list of references used in this document may be obtained by writing to this address, by telephoning the contact listed below (see **FOR FURTHER INFORMATION CONTACT**) or online at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications>. Documents cited in this notice may be viewed, by appointment, during regular business hours, at the aforementioned address.

**Instructions:** All comments received are a part of the public record and will generally be posted to <http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications> without change. All Personal Identifying

Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information.

The Maritime Administration (MARAD) and U.S. Coast Guard (USCG) Final Environmental Impact Statement (Final EIS) on the Neptune LNG Deepwater Port License Application is available for viewing at <http://www.regulations.gov> by entering the search words "Neptune LNG."

**FOR FURTHER INFORMATION CONTACT:** Candace Nachman, Office of Protected Resources, NMFS, (301) 713-2289 ext. 156.

#### SUPPLEMENTARY INFORMATION:

##### Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, notice of a proposed authorization is provided to the public for review.

Authorization for incidental takings may be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses, and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such taking are set forth.

NMFS has defined "negligible impact" in 50 CFR 216.103 as:

an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.

Section 101(a)(5)(D) of the MMPA establishes an expedited process by which citizens of the U.S. can apply for an authorization to incidentally take small numbers of marine mammals by harassment. Except for certain categories of activities not pertinent here, the MMPA defines "harassment" as:

any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild ["Level A harassment"]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing,

nursing, breeding, feeding, or sheltering ["Level B harassment"].

Section 101(a)(5)(D) establishes a 45-day time limit for NMFS review of an application followed by a 30-day public notice and comment period on any proposed authorizations for the incidental harassment of small numbers of marine mammals. Within 45 days of the close of the comment period, NMFS must either issue or deny the authorization.

### Summary of Request

On December 27, 2007, NMFS received an application from Neptune requesting an MMPA authorization to take small numbers of several species of marine mammals, by Level B (behavioral) harassment, incidental to construction and operation of an offshore LNG facility. NMFS has already issued a 1-year IHA to Neptune for construction activities pursuant to section 101(a)(5)(D) of the MMPA (73 FR 33400, June 12, 2008), which is effective through June 30, 2009. This proposed IHA would cover the completion of construction activities and operations for a 1-year period. Since operation and maintenance of the Neptune LNG Port facility will be ongoing into the foreseeable future, NMFS plans to propose regulations, pursuant to section 101(a)(5)(A) of the MMPA, to govern these incidental takes under a Letter of Authorization for up to 5 years. Under section 101(a)(5)(A), NMFS also must prescribe mitigation, monitoring, and reporting requirements in its regulations. NMFS announced notice of receipt of the application for regulations and requested comments on February 19, 2008 (73 FR 9092) and plans to publish proposed regulations later this year.

### Description of the Project

On March 23, 2007, Neptune received a license to own, construct, and operate a deepwater port (Port or Neptune Port) from MARAD. The Port, which will be located in Massachusetts Bay, will consist of a submerged buoy system to dock specifically designed LNG carriers approximately 22 mi (35 km) northeast of Boston, Massachusetts, in Federal waters approximately 260 ft (79 m) in depth. The two buoys will be separated by a distance of approximately 2.1 mi (3.4 km).

Neptune will be capable of mooring LNG shuttle and regasification vessels (SRVs) with a capacity of approximately 140,000 cubic meters (m<sup>3</sup>). Up to two SRVs will temporarily moor at the proposed deepwater port by means of a submerged unloading buoy system. Two separate buoys will allow natural gas to

be delivered in a continuous flow, without interruption, by having a brief overlap between arriving and departing SRVs. The annual average throughput capacity will be around 500 million standard cubic feet per day (mmscfd) with an initial throughput of 400 mmscfd, and a peak capacity of approximately 750 mmscfd.

The SRVs will be equipped to store, transport, and vaporize LNG, and to odorize, meter and send out natural gas by means of two 16-in (40.6-cm) flexible risers and one 24-in (61-cm) subsea flowline. These risers and flowline will lead to a proposed 24-in (61-cm) gas transmission pipeline connecting the deepwater port to the existing 30-in (76.2-cm) Algonquin Hubline<sup>SM</sup> (Hubline<sup>SM</sup>) located approximately 9 mi (14.5 km) west of the proposed deepwater port location. The Port will have an expected operating life of approximately 20 years. Figure 1–1 of Neptune's application shows an isometric view of the Port.

On February 15, 2005, Neptune submitted an application to the USCG and MARAD under the Deepwater Port Act for all Federal authorizations required for a license to own, construct, and operate a deepwater port for the import and regasification of LNG off the coast of Massachusetts. Because, as described later in this document, there is a potential for marine mammals to be taken by harassment, incidental to construction of the facility and its pipeline and by the transport and regasification of LNG, Neptune has applied for an MMPA authorization. The following sections briefly describe the activities that might harass marine mammals. Detailed information on these activities can be found in the MARAD/USCG Final EIS on the Neptune Project (see **ADDRESSES** for availability).

### Construction Activities

The sequence for the offshore installation effort for Neptune is as follows: mobilize an anchored lay barge and support vessels (i.e., anchor handling tugs, oceangoing tugs, and survey/diver support vessel) for the Proposed Pipeline Route; install the flowline between the riser manifolds locations; install the new gas transmission pipeline from the northern riser manifold location to the transition manifold location at the Hubline<sup>SM</sup>; conduct pipeline hydrostatic testing; install the hot tap at the Hubline<sup>SM</sup>; install the two riser manifolds and the transition manifold; install the anchor piles and the lower portion of the mooring lines; connect the mooring lines to the unloading buoys and properly tension the mooring lines; and

connect the two risers and control umbilicals between the unloading buoys and the riser manifolds. Construction began in July 2008 and is expected to be completed in September 2009. Construction activities in 2008 ceased on October 13. Activities are expected to resume on May 1, 2009, under the current IHA. See Figure 1–2 of Neptune's application for a full construction schedule.

### Description of Construction Activities Completed in 2008

#### Flowline

A pipelaying vessel installed the flowline between the two riser manifold locations. The flowline is a 24-in-diameter (61-cm) line pipe with concrete weight coating and has a length of approximately 2.5 mi (4 km). The flowline is buried to the top of the pipe. Trenching began approximately 300 ft (91.4 ft) from the southern riser manifold location and ended approximately 300 ft (91.4 ft) from the northern manifold location. Transition sections used hand jetting machines, as required, to lower the pipe in the trench. Transition sections were covered with concrete mats. A post-trenching survey was performed to verify that the proper depth was achieved. Subsequent survey runs will be performed in spring 2009 and after all construction is complete to ensure burial depth requirements are achieved.

#### Gas Transmission Pipeline to the Hubline<sup>SM</sup>

The gas transmission pipeline begins at the existing Hubline<sup>SM</sup> pipeline approximately 3 mi (4.8 km) east of Marblehead Neck, Massachusetts. From this point, the pipeline extends toward the northeast crossing of the territorial waters of the town of Marblehead, the city of Salem, the city of Beverly, and the town of Manchester-by-the-Sea for approximately 6.4 mi (10.3 km). The transmission line route continues to the southeast for approximately 4.5 mi (7.2 km) crossing state and Federal waters. The location of the pipeline is shown in Figure 2–1 of Neptune's application.

The transmission pipe (with concrete weight coating) was transported from the temporary shore base to the operating site. The construction sequence for the transmission line began with plowing of the pipeline trench. A pipelaying vessel installed the 24-in-diameter (61-cm) pipeline (target burial depth of 3 ft (0.9 m) to the top of the pipe) from the northern riser manifold location to the location of the transition manifold near the connection point to the Hubline<sup>SM</sup>. The gas transmission

line was buried from the transition manifold location to the northern riser manifold location. Trenching began approximately 300 ft (91.4 m) from the northern riser manifold location and ended approximately 300 ft (91.4 m) from the transition manifold location. A post-trenching survey was performed to verify that the proper depth was achieved. Subsequent survey runs will be performed in spring 2009 and after all construction is complete to ensure burial depth requirements are achieved.

#### *Hydrostatic Pipeline Integrity Testing*

There was one combined gas transmission line and flowline hydrotest, following pipelay, trenching, and burial. The whole system is in-line and piggable, meaning that the pipeline can accept pigs, which are gauging/cleaning devices that are driven by pressure from one end of the pipe segment to the other without obstruction. The gas transmission line and flowline were flooded with approximately 1.5 million gallons of filtered seawater, including environmentally-friendly fluorescent dye and corrosion inhibitor. This volume assumes that no water will bypass the pigs and will include approximately 1,700 gallons (6,435 liters) of water in front of the flooding pig and approximately 1,700 gallons (6,435 liters) of water between other pigs. Flooding took place from the southern riser manifold location to the Hubline<sup>SM</sup> transition manifold location. All hydro-test water will be discharged in Federal waters, near the unloading buoys in summer 2009. The total pipeline system will then be swab-dried using a pig train with slugs of glycol or similar fluid. The water content of the successive slugs will be sampled to verify that the total pipeline has been properly dried.

#### **Description of Construction Activities to be Completed in 2009**

##### *Pipeline Hot Tap Installation*

The hot tap fitting, which will not require welding, will provide full structural reinforcement where the hole will be cut in the Hubline<sup>SM</sup>. The tapping tool and actual hot tap procedure will be supplied and supervised by a specialist from the manufacturer. Prior to construction of the hot tap, divers will excavate the Hubline<sup>SM</sup> tie-in location using suction pumps. The concrete weight coating will be removed from the Hubline<sup>SM</sup> and inspected for suitability of the hot tap. The hinged hot tap fitting will then be lowered and opened to fit over the 30-in (76.2-cm) Hubline<sup>SM</sup>. The hot tap

fitting will then be closed around the pipeline, the clam studs and packing flanges will be tightened, and the fitting will be leak tested. The Hubline<sup>SM</sup> then will be tapped, and the valves will be closed. The hot tap and exposed sections of the Hubline<sup>SM</sup> will be protected with concrete mats until the tie-in to the transition manifold occurs.

##### *Anchor Installation*

The prefabricated anchor piles will be installed offshore with a dynamic positioning derrick barge. The anchor points will be within a radius of 1,600 to 3,600 ft (487.7 to 1,097.3 m) of the center of each unloading buoy. The anchor system will be installed using suction pile anchors.

##### *Unloading Buoys*

The unloading buoys will be offloaded near the designated site. The derrick barge will connect the mooring lines from the anchor points to each unloading buoy and then adjust the mooring line tensions to the desired levels.

##### *Risers*

The anchor-handling vessel or small derrick barge also will connect the riser and the control umbilical between each unloading buoy and the associated riser manifold, complete the hydrostatic testing and dewatering of the risers, and test the control umbilicals.

##### *Demobilization*

Upon completion of the offshore construction effort, sidescan sonar will be used to check the area. Divers will remove construction debris from the ocean floor. All construction equipment will leave the site.

#### **Construction Vessels**

The pipeline lay barge, anchor-handling vessels, and survey/diver support vessel each made two trips (one round trip) to and from the area of origin (Gulf of Mexico) and remained on station for the majority of the construction period. The supply vessels (or oceangoing tugs with cargo barges) and crew/survey vessel made regular trips between the construction sites and mainly the port of Gloucester (approximately 8 mi (12.9 km)) and Quincy Shipyard (approximately 20 mi (12.4 km)). During the entire project installation period in 2008 and 2009, the supply vessel will make approximately 102 trips (51 round trips), and the crew/survey vessel will make approximately 720 trips (360 round trips) for a combined total of 822 construction-support-related transits (411 round trips).

All of the construction and support vessels transit Massachusetts Bay en route to the Port. While transiting to and from the construction sites, the supply and crew/survey vessels travel at approximately 10 knots (18.5 km/hr). While transiting to and from the Gulf of Mexico, the derrick/lay barge and anchor handling vessels travel up to 12 and 14 knots (22.2 and 25.9 km/hr), respectively, but operate either in place or at very slow speeds during construction. The survey/diver support vessel travels at speeds up to 10 knots (18.5 km/hr) transiting to and from the construction area and between dive sites.

Materials, including unloading buoys, mooring lines, risers, and control umbilicals, will be transported from the shore-based storage area in New Brunswick, Canada, to the operating site on the vessel's deck. Cargo barges pulled by tugs transport the concrete-coated pipe sections and manifolds to the operating site.

Approved construction procedures are delivered to each construction vessel, and a kick-off meeting to review construction procedures, health and safety procedures, and environmental limitations are held with key personnel prior to starting each construction activity.

#### **Construction Sound**

Underwater acoustic analyses were completed for activities related to all aspects of Neptune construction. Activities considered to be potential sound sources during construction include: installation (plowing) of flowline and main transmission pipeline routes; lowering of materials (pipe, anchors, and chains); and installation of the suction pile anchors.

Construction-related activities for the Port and the pipeline will generate sound exceeding 120-dB re 1  $\mu$ Pa (rms). The loudest source of underwater noise during construction of the Neptune Port will be the use of thrusters for dynamic positioning.

#### **Port Operations**

During Neptune Port operations, sound will be generated by the regasification of the LNG aboard the SRVs and as a result of the use of thrusters by vessels maneuvering and maintaining position at the Port. Of these potential sound sources, thruster use for dynamic positioning has the potential to have the greatest impact. Operations are not expected to begin until spring 2010 at the earliest. The following text describes the activities that will occur at the Port upon its commissioning.

## Description of Port Operations

### Vessel Activity

The SRVs will approach the Port using the Boston Harbor Traffic Separation Scheme (TSS), entering the TSS within the Great South Channel (GSC) and remaining in the TSS until they reach the Boston Harbor Precautionary Area. At the Boston Lighted Horn Buoy B (at the center of the Boston Harbor Precautionary Area), the SRV will be met by a pilot vessel and a support vessel. A pilot will board the SRV, and the support vessel will accompany the SRV to the Port. SRVs carrying LNG typically travel at speeds up to 19.5 knots (36 km/hr). However, Neptune SRVs will reduce speed to 10 knots (18.5 km/hr) within the TSS year-round in the Off Race Point Seasonal Management Area (SMA; described later in this document) and to a maximum of 10 knots (18.5 km/hr) when traveling to and from the buoys once exiting the shipping lanes at the Boston Harbor Precautionary Area. In addition, Neptune will reduce speeds to 10 knots (18.5 km/hr) in the GSC SMA (described later in this document) from April 1 to July 31.

To supply a continuous flow of natural gas into the pipeline, about 50 roundtrip SRV transits will take place each year on average (one transit every 3.65 days). However, in the early stages of operation, it is expected that far fewer transits will occur each year. As an SRV approaches the Port, vessel speed will gradually be reduced. Upon arrival at the Port, one of the submerged unloading buoys will be located and retrieved from its submerged position by means of a winch and recovery line. The SRV is designed for operation in harsh environments and can connect to the unloading buoy in up to 11.5 ft (3.5 m) significant wave heights and remain operation in up to 36 ft (11 m) significant wave heights, providing high operational availability. The vessel's aft/forward thrusters will be used, only as necessary, for between 10 and 30 min during the docking procedure. During normal conditions, the vessel will be allowed to "weathervane" on the single-point mooring system. However, there will be certain conditions when aft thrusters may be used to maintain the heading of the vessel into the wind when competing tides operate to push the vessel broadside to the wind. In these circumstances, the ambient sound will already be high because of the wind and associated wave sound.

### Regasification System

Once an SRV is connected to a buoy, the vaporization of LNG and send-out of

natural gas can begin. Each SRV will be equipped with three vaporization units, each with the capacity to vaporize 250 mmscfd. Under normal operation, two units will be in service. The third vaporization unit will be on standby mode, though all three units could operate simultaneously.

### Operations Sound

The acoustic effects of using the thrusters for maneuvering at the unloading buoys were modeled by JASCO Research Limited (2005). The analysis assumed the use of four thrusters (two bow, two stern) at 100 percent power during all four seasons. Additional details of the modeling analyses can be found in Appendices B and C of Neptune's application (see **ADDRESSES**). During operations of the Port, the only sound that will exceed 120-dB is associated with the maneuvering of the SRVs during final docking at the Port. The loudest source of underwater sound during both construction or operation of the Neptune Port will be the use of thrusters for dynamic positioning.

### Description of Marine Mammals Affected by the Activity

Marine mammal species that potentially occur within the Neptune facility impact area include several species of cetaceans and pinnipeds: North Atlantic right whale, blue whale, fin whale, sei whale, minke whale, humpback whale, killer whale, long-finned pilot whale, sperm whale, Atlantic white-beaked dolphin, Atlantic white-sided dolphin, bottlenose dolphin, common dolphin, harbor porpoise, Risso's dolphin, striped dolphin, gray seal, harbor seal, harp seal, and hooded seal. Table 3-1 in the IHA application outlines the marine mammal species that occur in Massachusetts Bay and the likelihood of occurrence of each species. Information on those species that may be impacted by this activity are discussed in detail in the MARAD/USCG Final EIS on the Neptune LNG proposal. Please refer to that document for more information on these species and potential impacts from construction and operation of this LNG facility. In addition, general information on these marine mammal species can also be found in the NMFS U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments (Waring *et al.*, 2009), which are available at: <http://www.nefsc.noaa.gov/publications/tm/tm210/>. A summary on several commonly sighted marine mammal species distribution and abundance in the vicinity of the action area is provided below.

### Humpback Whale

The highest abundance for humpback whales is distributed primarily along a relatively narrow corridor following the 100-m (328 ft) isobath across the southern Gulf of Maine from the northwestern slope of Georges Bank, south to the GSC, and northward alongside Cape Cod to Stellwagen Bank and Jeffreys Ledge. The relative abundance of whales increases in the spring with the highest occurrence along the slope waters (between the 40- and 140-m, 131- and 459-ft, isobaths) off Cape Cod and Davis Bank, Stellwagen Basin and Tillies Basin and between the 50- and 200-m (164- and 656-ft) isobaths along the inner slope of Georges Bank. High abundance was also estimated for the waters around Platts Bank. In the summer months, abundance increases markedly over the shallow waters (<50 m, or <164 ft) of Stellwagen Bank, the waters (100-200 m, 328-656 ft) between Platts Bank and Jeffreys Ledge, the steep slopes (between the 30- and 160-m isobaths, 98- and 525-ft isobaths) of Phelps and Davis Bank north of the GSC towards Cape Cod, and between the 50- and 100-m (164- and 328-ft) isobath for almost the entire length of the steeply sloping northern edge of Georges Bank. This general distribution pattern persists in all seasons except winter when humpbacks remain at high abundance in only a few locations including Porpoise and Neddick Basins adjacent to Jeffreys Ledge, northern Stellwagen Bank and Tillies Basin, and the GSC.

### Fin Whale

Spatial patterns of habitat utilization by fin whales are very similar to those of humpback whales. Spring and summer high-use areas follow the 100-m (328 ft) isobath along the northern edge of Georges Bank (between the 50- and 200-m, 164- and 656-ft, isobaths), and northward from the GSC (between the 50- and 160-m, 164- and 525-ft, isobaths). Waters around Cashes Ledge, Platts Bank, and Jeffreys Ledge are all high-use areas in the summer months. Stellwagen Bank is a high-use area for fin whales in all seasons, with highest abundance occurring over the southern Stellwagen Bank in the summer months. In fact, the southern portion of Stellwagen Bank National Marine Sanctuary (SBNMS) is used more frequently than the northern portion in all months except winter, when high abundance is recorded over the northern tip of Stellwagen Bank. In addition to Stellwagen Bank, high abundance in winter is estimated for Jeffreys Ledge and the adjacent Porpoise Basin (100- to

160-m, 328- to 525-ft, isobaths), as well as Georges Basin and northern Georges Bank.

#### *Minke Whale*

Like other piscivorous baleen whales, highest abundance for minke whale is strongly associated with regions between the 50- and 100-m (164- and 328-ft) isobaths, but with a slightly stronger preference for the shallower waters along the slopes of Davis Bank, Phelps Bank, GSC, and Georges Shoals on Georges Bank. Minke whales are sighted in SBNMS in all seasons, with highest abundance estimated for the shallow waters (approximately 40 m, 131 ft) over southern Stellwagen Bank in the summer and fall months. Platts Bank, Cashes Ledge, Jeffreys Ledge, and the adjacent basins (Neddick, Porpoise, and Scantium) also support high relative abundance. Very low densities of minke whales remain throughout most of the southern Gulf of Maine in winter.

#### *North Atlantic Right Whale*

North Atlantic right whales are generally distributed widely across the southern Gulf of Maine in spring with highest abundance located over the deeper waters (100- to 160-m, or 328- to 525-ft, isobaths) on the northern edge of the GSC and deep waters (100–300 m, 328–984 ft) parallel to the 100-m (328-ft) isobath of northern Georges Bank and Georges Basin. High abundance was also found in the shallowest waters (< 30 m, <98 ft) of Cape Cod Bay (CCB), over Platts Bank and around Cashes Ledge. Lower relative abundance is estimated over deep-water basins including Wilkinson Basin, Rodgers Basin, and Franklin Basin. In the summer months, right whales move almost entirely away from the coast to deep waters over basins in the central Gulf of Maine (Wilkinson Basin, Cashes Basin between the 160- and 200-m, 525- and 656-ft, isobaths) and north of Georges Bank (Rogers, Crowell, and Georges Basins). Highest abundance is found north of the 100-m (328-ft) isobath at the GSC and over the deep slope waters and basins along the northern edge of Georges Bank. The waters between Fippennies Ledge and Cashes Ledge are also estimated as high-use areas. In the fall months, right whales are sighted infrequently in the Gulf of Maine, with highest densities over Jeffreys Ledge and over deeper waters near Cashes Ledge and Wilkinson Basin. In winter, CCB, Scantium Basin, Jeffreys Ledge, and Cashes Ledge were the main high-use areas. Although SBNMS does not appear to support the highest abundance of right whales, sightings within SBNMS

are reported for all four seasons, albeit at low relative abundance. Highest sighting within SBNMS occurs along the southern edge of the Bank.

#### *Long-finned Pilot Whale*

The long-finned pilot whale is more generally found along the edge of the continental shelf (a depth of 100 to 1,000 m, or 328 to 3,280 ft), choosing areas of high relief or submerged banks in cold or temperate shoreline waters. This species is split into two subspecies: the Northern and Southern subspecies. The Southern subspecies is circumpolar with northern limits of Brazil and South Africa. The Northern subspecies, which could be encountered during construction and/or operation of the Neptune Port facility, ranges from North Carolina to Greenland (Reeves *et al.*, 2002; Wilson and Ruff, 1999). In the western North Atlantic, long-finned pilot whales are pelagic, occurring in especially high densities in winter and spring over the continental slope, then moving inshore and onto the shelf in summer and autumn following squid and mackerel populations (Reeves *et al.*, 2002). They frequently travel into the central and northern Georges Bank, GSC, and Gulf of Maine areas during the summer and early fall (May and October; NOAA, 1993). According to the SAR, the best population estimate for the western North Atlantic stock of long-finned pilot whale is 31,139 individuals (Waring *et al.*, 2009).

#### *Atlantic White-sided Dolphin*

In spring, summer and fall, Atlantic white-sided dolphins are widespread throughout the southern Gulf of Maine, with the high-use areas widely located on either side of the 100-m (328-ft) isobath along the northern edge of Georges Bank, and north from the GSC to Stellwagen Bank, Jeffreys Ledge, Platts Bank, and Cashes Ledge. In spring, high-use areas exist in the GSC, northern Georges Bank, the steeply sloping edge of Davis Bank, and Cape Cod, southern Stellwagen Bank, and the waters between Jeffreys Ledge and Platts Bank. In summer, there is a shift and expansion of habitat toward the east and northeast. High-use areas occur along most of the northern edge of Georges Bank between the 50- and 200-m (164- and 656-ft) isobaths and northward from the GSC along the slopes of Davis Bank and Cape Cod. High sightings are also recorded over Truxton Swell, Wilkinson Basin, Cashes Ledge and the bathymetrically complex area northeast of Platts Bank. High sightings of white-sided dolphin are recorded within SBNMS in all seasons, with highest density in summer and most

widespread distributions in spring located mainly over the southern end of Stellwagen Bank. In winter, high sightings were recorded at the northern tip of Stellwagen Bank and Tillies Basin.

A comparison of spatial distribution patterns for all baleen whales (Mysticeti) and all porpoises and dolphins combined showed that both groups have very similar spatial patterns of high- and low-use areas. The baleen whales, whether piscivorous or planktivorous, are more concentrated than the dolphins and porpoises. They utilize a corridor that extends broadly along the most linear and steeply sloping edges in the southern Gulf of Maine indicated broadly by the 100 m (328 ft) isobath. Stellwagen Bank and Jeffreys Ledge support a high abundance of baleen whales throughout the year. Species richness maps indicate that high-use areas for individual whales and dolphin species co-occurred, resulting in similar patterns of species richness primarily along the southern portion of the 100-m (328-ft) isobath extending northeast and northwest from the GSC. The southern edge of Stellwagen Bank and the waters around the northern tip of Cape Cod are also highlighted as supporting high cetacean species richness. Intermediate to high numbers of species are also calculated for the waters surrounding Jeffreys Ledge, the entire Stellwagen Bank, Platts Bank, Fippennies Ledge, and Cashes Ledge.

#### *Killer Whale, Common Dolphin, Bottlenose Dolphin, and Harbor Porpoise*

Although these four species are some of the most widely distributed small cetacean species in the world (Jefferson *et al.*, 1993), they are not commonly seen in the vicinity of the project area in Massachusetts Bay (Wiley *et al.*, 1994; NCCOS, 2006; Northeast Gateway Marine Mammal Monitoring Weekly Reports, 2007; Neptune Marine Mammal Monitoring Weekly Reports, 2008).

#### *Harbor Seal and Gray Seal*

In the U.S. western North Atlantic, both harbor and gray seals are usually found from the coast of Maine south to southern New England and New York (Waring *et al.*, 2007).

Along the southern New England and New York coasts, harbor seals occur seasonally from September through late May (Schneider and Payne, 1983). In recent years, their seasonal interval along the southern New England to New Jersey coasts has increased (deHart, 2002). In U.S. waters, harbor seal breeding and pupping normally occur in

waters north of the New Hampshire/Maine border, although breeding has occurred as far south as Cape Cod in the early part of the 20th century (Temte *et al.*, 1991; Katona *et al.*, 1993).

Although gray seals are often seen off the coast from New England to Labrador, within U.S. waters, only small numbers of gray seals have been observed pupping on several isolated islands along the Maine coast and in Nantucket-Vineyard Sound, Massachusetts (Katona *et al.*, 1993; Rough, 1995). In the late 1990s, a year-round breeding population of approximately 400 gray seals was documented on outer Cape Cod and Muskeget Island (Waring *et al.*, 2007).

### Potential Effects of Noise on Marine Mammals

The effects of sound on marine mammals are highly variable and can be categorized as follows (based on Richardson *et al.*, 1995): (1) The sound may be too weak to be heard at the location of the animal (i.e., lower than the prevailing ambient noise level, the hearing threshold of the animal at relevant frequencies, or both); (2) The sound may be audible but not strong enough to elicit any overt behavioral response; (3) The sound may elicit reactions of variable conspicuousness and variable relevance to the well being of the marine mammal; these can range from temporary alert responses to active avoidance reactions, such as vacating an area at least until the sound ceases; (4) Upon repeated exposure, a marine mammal may exhibit diminishing responsiveness (habituation) or disturbance effects may persist; the latter is most likely with sounds that are highly variable in characteristics, infrequent, and unpredictable in occurrence, and associated with situations that a marine mammal perceives as a threat; (5) Any anthropogenic sound that is strong enough to be heard has the potential to reduce (mask) the ability of a marine mammal to hear natural sounds at similar frequencies, including calls from conspecifics, and underwater environmental sounds such as surf noise; (6) If mammals remain in an area because it is important for feeding, breeding, or some other biologically important purpose even though there is chronic exposure to sound, it is possible that there could be sound-induced physiological stress; this might in turn have negative effects on the well-being or reproduction of the animals involved; and (7) Very strong sounds have the potential to cause temporary or permanent reduction in hearing sensitivity. In terrestrial mammals, and

presumably marine mammals, received sound levels must far exceed the animal's hearing threshold for there to be any temporary threshold shift (TTS) in its hearing ability. For transient sounds, the sound level necessary to cause TTS is inversely related to the duration of the sound. Received sound levels must be even higher for there to be risk of permanent hearing impairment. In addition, intense acoustic (or explosive events) may cause trauma to tissue associated with organs vital for hearing, sound production, respiration, and other functions. This trauma may include minor to severe hemorrhage.

There are three general types of sounds recognized by NMFS: continuous, intermittent (or transient), and pulsive. Sounds of short duration that are produced intermittently or at regular intervals, such as sounds from pile driving, are classified as "pulsed." Sounds produced for extended periods, such as sound from generators, are classified as "continuous." Sounds from moving sources, such as ships, can be continuous, but for an animal at a given location, these sounds are "transient" (i.e., increasing in level as the ship approaches and then diminishing as it moves away).

The only anticipated impact to marine mammals during construction and operation would be the short-term displacement of marine mammals from areas ensounded by sound generated by equipment operation and vessel movement (thruster use). The sound sources of potential concern are continuous and intermittent sound sources, including underwater noise generated during pipeline/flowline construction and operational underwater sound generated by regasification/offloading (continuous) and dynamic positioning of vessels using thrusters (intermittent). Neither the construction nor operation of the Port will cause pulsive sound activities, including pile driving, seismic activities, or blasting. Both continuous and intermittent sound sources are subject to NMFS' 120 dB re 1  $\mu$ Pa threshold for determining Level B harassment take levels from continuous underwater noise that may result in the disturbance of marine mammals.

### Potential Impacts of Construction Activities

Construction and operation of the Neptune Port will occur consecutively, with no overlap in activities. Sound from Port and pipeline construction will cause some possible disturbance to small numbers of both baleen and toothed whales. Additionally, harbor

and gray seals may occur in the area and may experience some disturbance.

The installation of the suction piles will produce only low levels of sound during the construction period and will not increase the numbers of animals affected. Modeling results indicate that noise levels would be below 90 dB re 1  $\mu$ Pa within 0.2 mi (0.3 km) of the source. Pipe-laying activities will generate continuous but transient sound and will likely result in variable sound levels during the construction period. Modeling conducted by JASCO Research Limited indicates that, depending on water depth, the 120-dB contour during pipe-laying activities would extend 3.9 km (2.1 nm) from the source and cover an area of 52 km<sup>2</sup> (15 nm<sup>2</sup>). Additionally, the use of thrusters during maneuvering or under certain wind and tidal conditions will generate sound levels above the 120-dB threshold. The temporary elevation in the underwater sound levels may cause some species to temporarily disperse from or avoid construction areas, but they are expected to return shortly after construction is completed. The underwater sound generated by the use of the thrusters during maneuvering or under certain wind and tidal conditions is expected to have only minimal effects to individual marine mammals and is not expected to have a population-level effect to local marine mammal species or stocks because of the short-term and temporary nature of the activity.

The likelihood of a vessel strike of a marine mammal during construction is low since construction vessels travel at very slow speeds. Any whales foraging near the bottom would be able to avoid collision or interaction with the equipment and displacement would be temporary for the duration of the plow pass. No injury or mortality of marine mammals is expected as a result of construction of the Neptune Port facility.

### Potential Impacts of Operational Activities

During the operational life of the project, marine mammals will be exposed to intermittent sound from the use of thrusters positioning the carriers at the unloading buoys and the sounds associated with the regasification process. Under certain wind and tidal conditions, the two aft thrusters will be continuously operated to maintain the heading of the vessel into the wind when competing tides operate to push the vessel broadside to the wind. These activities will occur at each of the two fixed-location unloading buoys. The sound from the regasification process is low and will not reach levels of 120 dB

re 1  $\mu$ Pa. However, the brief bursts (10–30 min) of sound associated with the use of four thrusters to position the ships would have the potential to disturb marine mammals near the Port. The underwater sound generated by the use of the thrusters during maneuvering or under certain wind and tidal conditions is expected to have only minimal effects to individual marine mammals and is not expected to have a population-level effect to local marine mammal species or stocks. One reason is the relatively short duration and infrequency of the use of thrusters (every 4–8 days and 10–30 min each episode for maneuvering or intermittently to maintain heading during certain weather conditions when operations reach their peak. However, between July 2009 and June 2010, the period for this proposed IHA, it is expected that only one to two shipments would occur, and they may be spaced even farther apart than every 4–8 days).

The use of thrusters during dynamic positioning and the sounds produced during the regasification process may cause some behavioral harassment to marine mammals present in the project area. However, this harassment is expected to be short-term and minimal in nature. Any displacement from the Port location and surrounding areas is expected to be temporary. Additionally, the distribution of odontocetes in the area is patchy, the presence of baleen whales, especially North Atlantic right whales, is seasonal, and harbor and gray seals have been observed to habituate to human activities, including sound. No injury or mortality is expected as a result of operations at the Port.

Using conservative estimates of both marine mammal densities in the Project area and the size of the 120–dB zone of influence (ZOI), the calculated number of individual marine mammals for each species that could potentially be harassed annually is small. Please see the “Estimates of Take by Harassment” section for the calculation of these numbers.

#### Estimates of Take by Harassment

Pipe-laying activities will generate continuous but transient sound and will likely result in variable sound levels during the construction period. Depending on water depth, the 120–dB contour during pipe-laying activities will extend from the source (the Port) out to 3.9 km (2.1 nm) and cover an area of 52 km<sup>2</sup> (15 nm<sup>2</sup>), and, for the flowline at the Port, the 120–dB contour will extend from the pipeline route out to 4.2 km (2.3 nm) and cover an area of 49 km<sup>2</sup> (14.3 nm<sup>2</sup>). (This information is different from what is contained in the

March 23, 2007, application submitted by Neptune to NMFS. Neptune conducted its acoustic modeling in the very early planning stages of the project, when little information was available on the types of vessels that could potentially be used during construction. Since that time, a contractor has been hired to construct the Port. The vessels to be used during Neptune Port construction are now estimated to generate broadband underwater source levels in the range of 180 dB re 1 Pa at 1m, similar to several of the vessels modeled by JASCO for Neptune and not in the range of 200 dB re 1 Pa at 1m, which was also included in the original modeling as a worst case scenario. For more information on the modeling conducted by JASCO, please refer to Appendix B of Neptune’s application.) Installation of the suction pile anchors at the Port will produce only low levels of underwater sound, with no source levels above 120–dB for continuous sound.

In order to estimate the level of takes for the operation phase of this activity, NMFS has used the same ensonified zone as that described above for construction activities (i.e., 52 km<sup>2</sup> [15 nm<sup>2</sup>]).

The basis for Neptune’s “take” estimate is the number of marine mammals that potentially could be exposed to sound levels in excess of 120 dB. Typically, this is determined by applying the modeled ZOI (e.g., the area ensonified by the 120–dB contour) to the seasonal use (density) of the area by marine mammals and correcting for seasonal duration of sound-generating activities and estimated duration of individual activities when the maximum sound-generating activities are intermittent to occasional. Nearly all of the required information is readily available in the MARAD/USCG Final EIS, with the exception of marine mammal density estimates for the project area. In the case of data gaps, a conservative approach was used to ensure that the potential number of takes is not underestimated, as described next.

NMFS recognizes that baleen whale species other than North Atlantic right whales have been sighted in the project area from May to November. However, the occurrence and abundance of fin, humpback, and minke whales is not well documented within the project area. Nonetheless, NMFS used the data on cetacean distribution within Massachusetts Bay, such as those published by the NCCOS (2006), to determine potential takes of marine mammals in the vicinity of the project area.

The NCCOS study used cetacean sightings from two sources: (1) the North Atlantic Right Whale Consortium (NARWC) sightings database held at the University of Rhode Island (Kenney, 2001); and (2) the Manomet Bird Observatory (MBO) database, held at the NMFS Northeast Fisheries Science Center (NEFSC). The NARWC data contained survey efforts and sightings data from ship and aerial surveys and opportunistic sources between 1970 and 2005. The main data contributors included: the Cetacean and Turtles Assessment Program, the Canadian Department of Fisheries and Oceans, the Provincetown Center for Coastal Studies, International Fund for Animal Welfare, NEFSC, New England Aquarium, Woods Hole Oceanographic Institution, and the University of Rhode Island. A total of 406,293 mi (653,725 km) of survey track and 34,589 cetacean observations were provisionally selected for the NCCOS study in order to minimize bias from uneven allocation of survey effort in both time and space. The sightings-per-unit-effort (SPUE) was calculated for all cetacean species by month covering the southern Gulf of Maine study area, which also includes the project area (NCCOS, 2006).

The MBO’s Cetacean and Seabird Assessment Program (CSAP) was contracted from 1980 to 1988 by NEFSC to provide an assessment of the relative abundance and distribution of cetaceans, seabirds, and marine turtles in the shelf waters of the northeastern U.S. (MBO, 1987). The CSAP program was designed to be completely compatible with NEFSC databases so that marine mammal data could be compared directly with fisheries data throughout the time series during which both types of information were gathered. A total of 8,383 mi (5,210 km) of survey distance and 636 cetacean observations from the MBO data were included in the NCCOS analysis. Combined valid survey effort for the NCCOS studies included 913,840 mi (567,955 km) of survey track for small cetaceans (dolphins and porpoises) and 1,060,226 mi (658,935 km) for large cetaceans (whales) in the southern Gulf of Maine. The NCCOS study then combined these two data sets by extracting cetacean sighting records, updating database field names to match the NARWC database, creating geometry to represent survey tracklines and applying a set of data selection criteria designed to minimize uncertainty and bias in the data used.

Based on the comprehensiveness and total coverage of the NCCOS cetacean distribution and abundance study, NMFS calculated the estimated take number of marine mammals based on

the most recent NCCOS report published in December, 2006. A summary of seasonal cetacean distribution and abundance in the project area is provided previously in this document, in the "Marine Mammals Affected by the Activity" section. For a detailed description and calculation of the cetacean abundance data and SPUE, refer to the NCCOS study (NCCOS, 2006). SPUE for the spring, summer, and fall seasons were analyzed, and the highest value SPUE for the season with the highest abundance of each species was used to determine relative abundance. Based on the data, the relative abundance of North Atlantic right, fin, humpback, minke, and pilot whales and Atlantic white-sided dolphins, as calculated by SPUE in number of animals per square kilometer, is 0.0082, 0.0097, 0.0265, 0.0059, 0.0407, and 0.1314 n/km, respectively.

In calculating the area density of these species from these linear density data, NMFS used 0.4 km (0.25 mi), which is a quarter the distance of the radius for visual monitoring (see Monitoring, Mitigation, and Reporting section later in this document), as a conservative hypothetical strip width (W). Thus the area density (D) of these species in the project area can be obtained by the following formula:

$$D = \text{SPUE}/2W.$$

Based on the calculation, the estimated take numbers by Level B harassment for the 1-year IHA period for North Atlantic right, fin, humpback, minke, and pilot whales and Atlantic white-sided dolphins, within the 120-dB ZOI of the LNG Port facility area of approximately 52 km<sup>2</sup> (15 nm<sup>2</sup>) maximum ZOI, corrected for 50 percent underwater, are 48, 57, 155, 35, 238, and 770, respectively. This estimate is based on an estimated 60 days of construction activities remaining for the period July until September, 2009, that will produce sounds of 120 dB or greater.

Based on the same calculation method described above for Port construction, the estimated take numbers by Level B harassment for North Atlantic right, fin, humpback, minke, and pilot whales and Atlantic white-sided dolphins for the 1-year IHA period incidental to Port operations (which is expected to happen no more than twice during the effectiveness of this proposed IHA), operating the vessel's thrusters for dynamic positioning before offloading natural gas, corrected for 50 percent underwater, are 2, 2, 5, 1, 8, and 26, respectively.

The total estimated take of these species as a result of both construction and operation of the Neptune Port

facility from July 1, 2009, through June 30, 2010, is: 50 North Atlantic right whales, 59 fin whales, 160 humpback whales, 36 minke whales, 246 pilot whales, and 796 Atlantic white-sided dolphins. These numbers represent a maximum of 15.4, 2.6, 18.9, 1.1, 0.8, and 1.3 percent of the populations for these species in the western North Atlantic, respectively. Since it is highly likely that individual animals will be "taken" by harassment multiple times (since certain individuals may occur in the area more than once while other individuals of the population or stock may not enter the proposed project area) and the fact that the highest value SPUE for the season with the highest abundance of each species was used to determine relative abundance, these percentages are the upper boundary of the animal population that could be affected. Therefore, the actual number of individual animals being exposed or taken are expected to be far less.

In addition, bottlenose dolphins, common dolphins, killer whales, harbor porpoises, harbor seals, and gray seals could also be taken by Level B harassment as a result of the deepwater LNG port project. The numbers of estimated take of these species are not available because they are rare in the project area. The population estimates of these marine mammal species and stocks in the western North Atlantic basin are 81,588; 120,743; 89,700; 99,340; and 195,000 for bottlenose dolphins, common dolphins, harbor porpoises, harbor seals, and gray seals, respectively (Waring *et al.*, 2007). No population estimate is available for the North Atlantic stock of killer whales, however, their occurrence within the proposed project area is rare. Since Massachusetts Bay represents only a small fraction of the western North Atlantic basin where these animals occur, and these animals do not regularly congregate in the vicinity of the project area, NMFS believes that only relatively small numbers of these marine mammal species would be potentially affected by the Neptune LNG deepwater project. From the most conservative estimates of both marine mammal densities in the project area and the size of the 120-dB ZOI, the maximum calculated number of individual marine mammals for each species that could potentially be harassed annually is small relative to the overall population sizes (18.9 percent for humpback whales and 15.4 percent for North Atlantic right whales and no more than 2.6 percent of any other species).

### Potential Impact of the Activity on Habitat

#### *Potential Impact on Habitat from Construction*

Construction of the Neptune Port and pipeline will affect marine mammal habitat in several ways: seafloor disturbance, increased turbidity, and generation of additional underwater sound in the area. Proposed construction activities will temporarily disturb 418 acres (1.7 km<sup>2</sup>) of seafloor (11 acres (0.04 km<sup>2</sup>) at the Port, 85 acres (0.3 km<sup>2</sup>) along the pipeline route, and an estimated 322 acres (1.3 km<sup>2</sup>) due to anchoring of construction and installation vessels). Of the proposed construction activities, pipeline installation, including trenching, plowing, jetting, and backfill, is expected to generate the most disturbance of bottom sediments. Sediment transport modeling conducted by Neptune indicates that initial turbidity from pipeline installation could reach 100 milligrams per liter (mg/L) but will subside to 20 mg/L after 4 hours. Turbidity associated with the flowline and hot-tap will be considerably less and also will settle within hours of the work being completed. Resettled sediments also will constitute to seafloor disturbance. When re-suspended sediments resettle, they reduce growth, reproduction, and survival rates of benthic organisms, and in extreme cases, smother benthic flora and fauna. Plankton will not be affected by resettled sediment. The project area is largely devoid of vegetation and consists of sand, silt, clay, or mixtures of the three.

Recovery of soft-bottom benthic communities impacted by project installation is expected to be similar to the recovery of the soft habitat associated with the construction of the Hubline<sup>SM</sup> (Algonquin Gas Transmission L.L.C., 2004). Post-construction monitoring of the Hubline<sup>SM</sup> indicates that areas that were bucket-dredged showed the least disturbance. Displaced organisms will return shortly after construction ceases, and disrupted communities will easily re-colonize from surrounding communities of similar organisms. Similarly, disturbance to hard-bottom pebble/cobble and piled boulder habitat is not expected to be significant. Some organisms could be temporarily displaced from existing shelter, thereby exposing them to increased predation, but the overall structural integrity of these areas will not be reduced (Auster and Langton, 1998).

Short-term impacts on phytoplankton, zooplankton (holoplankton), and

planktonic fish and shellfish eggs and larvae (meroplankton) will occur as a result of the project. Turbidity associated with Port and pipeline installation will result in temporary direct impacts on productivity, growth, and development. Phytoplankton and zooplankton abundance will be greatest during the summer construction schedule. Fish eggs and larvae are present in the project area throughout the year. Different species of fish and invertebrate eggs and larvae will be affected by the different construction schedules.

The temporary disturbance of benthic habitat from trenching for and burial of the transmission pipeline will result in direct, minor, adverse impacts from the dispersion of fish from the area and the burying or crushing of shellfish. In the short-term, there will be a temporary, indirect, and beneficial impact from exposing benthic food sources. Seafloor disturbance could also occur as a result of resettling of suspended sediments during installation and construction of the proposed Port and pipeline. Redeposited sediments will potentially reduce viability of demersal fish eggs and growth, reproduction, and survival rates of benthic shellfish. In extreme cases, resettled sediments could smother benthic shellfish, although many will be able to burrow vertically through resettled sediments.

Based on the foregoing, construction activities will not create long-term habitat changes, and marine mammals displaced by the disturbance to the seafloor are expected to return soon after construction ceases. Marine mammals also could be indirectly affected if benthic prey species were displaced or destroyed by construction activities. However, affected species are expected to recover soon after construction ceases and will represent only a small portion of food available to marine mammals in the area.

#### *Potential Impact on Habitat from Operation*

Operation of the Port will result in long-term, continued disturbance of the seafloor, regular withdrawal of seawater, and generation of underwater sound.

**Seafloor Disturbance:** The structures associated with the Port (flowline and pipeline, unloading buoys and chains, suction anchors) will be permanent modifications to the seafloor. Up to 63.7 acres (0.25 km<sup>2</sup>) of additional seafloor will be subject to disturbance due to chain and flexible riser sweep while the buoys are occupied by SRVs.

#### *Ballast and Cooling Water*

**Withdrawal:** Withdrawal of ballast and cooling water at the Port as the SRV

unloads cargo (approximately 2.39 million gallons per day) could potentially entrain zooplankton and ichthyoplankton that serve as prey for whale species. This estimate includes the combined seawater intake while two SRVs are moored at the Port (approximately 9 hr every 6 days). The estimated zooplankton abundance in the vicinity of the seawater intake ranges from 25.6–105 individuals per gallon (Libby *et al.*, 2004). This means that the daily intake will remove approximately 61.2–251 million individual zooplankton per day, the equivalent of approximately 7.65–31.4 lbs (3.47–14.2 kg). Since zooplankton are short-lived species (e.g., most copepods live from 1 wk to several months), these amounts will be indistinguishable from natural variability.

**Underwater Sound:** During operation of the Port, underwater sound will principally be generated by use of thrusters when SRVs are mooring at the unloading buoy and at other times for maintaining position under certain wind and tidal conditions. Thruster use will be intermittent, equating to about 20 hr/yr when the Port is fully operational and should equate to less than 1 hr during the period of effectiveness for this proposed IHA.

In the long-term, approximately 64.6 acres (0.26 km<sup>2</sup>) of seafloor will be permanently disturbed to accommodate the Port (including the associated pipeline). The area disturbed because of long-term chain and riser sweep includes 63.7 acres (0.25 km<sup>2</sup>) of soft sediment. This area will be similar in calm seas and in hurricane conditions. The chain weight will restrict the movement of the buoy or the vessel moored on the buoy. An additional 0.9 acre (0.004 km<sup>2</sup>) of soft sediments will be converted to hard substrate. The total affected area will be small compared to the soft sediments available in the proposed project area. Long-term disturbance from installation of the Port will comprise approximately 0.3 percent of the estimated 24,000 acres (97 km<sup>2</sup>) of similar bottom habitat surrounding the project area (northeast sector of Massachusetts Bay).

It is likely that displaced organisms will not return to the area of continual chain and riser sweep. A shift in benthic faunal community is expected in areas where soft sediment is converted to hard substrate (Algonquin Gas Transmission LLC, 2005). This impact will be beneficial for species that prefer hard-bottom structure and adverse for species that prefer soft sediment. Overall, because of the relatively small areas that will be affected, impacts on

soft-bottom communities are expected to be minimal.

Daily removal of seawater will reduce the food resources available for planktivorous organisms. The marine mammal species in the area have fairly broad diets and are not dependent on any single species for survival. Because of the relatively low biomass that will be entrained by the Port, the broad diet, and broad availability of organisms in the proposed project area, indirect impacts on the food web that result from entrainment of planktonic fish and shellfish eggs and larvae are expected to be minor and therefore should have minimal impact on affected marine mammal species or stocks.

#### **Proposed Mitigation and Monitoring Measures**

For the proposed Neptune LNG Port construction and operation activities, NMFS proposes the following monitoring and mitigation measures.

#### *Port Construction Minimization Measures*

##### (1) General

Construction activities will be limited to a May through November time frame so that acoustic disturbance to the endangered North Atlantic right whale can largely be avoided.

##### (2) Proposed Visual Monitoring Program

The Neptune Project will employ two marine mammal observers (MMOs) on each lay barge, bury barge, and diving support vessel for visual shipboard surveys during construction activities. Qualifications for these individuals will include direct field experience on a marine mammal/sea turtle observation vessel and/or aerial surveys in the Atlantic Ocean and/or Gulf of Mexico. The observers (one primary, one secondary) are responsible for visually locating marine mammals at the ocean's surface, and, to the extent possible, identifying the species. Both observers will have responsibility for monitoring for the presence of marine mammals. The primary observer will act as the identification specialist, and the secondary observer will serve as data recorder and also assist with identification. All observers must receive NMFS-approved MMO training and be approved in advance by NMFS after review of their qualifications.

The MMOs will be on duty at all times when each vessel is moving and at selected periods when construction vessels are idle, including when other vessels move around the construction lay barge. The MMOs will monitor the construction area beginning at daybreak

using 25x power binoculars and/or hand-held binoculars, resulting in a conservative effective search range of 0.5 mi (0.8 km) during clear weather conditions for the shipboard observers. The MMO will scan the ocean surface by eye for a minimum of 40 min/hr. All sightings will be recorded in marine mammal field sighting logs.

Observations of marine mammals will be identified to species or the lowest taxonomic level and their relative position will be recorded. Night vision devices will be standard equipment for monitoring during low-light hours and at night.

During all phases of construction, MMOs will be required to scan for and report all marine mammal sightings to the vessel captain. The captain will then alert the environmental coordinator that a marine mammal is near the construction area. The MMO will have the authority to bring the vessel to idle or to temporarily suspend operations if a baleen whale is seen within 0.6 mi (1 km) of the moving pipelay vessel or construction area. The MMO or environmental coordinator will determine whether there is a potential for harm to an individual animal and will be charged with responsibility for determining when it is safe to resume activity. A vessel will not increase power again until the marine mammal(s) leave(s) the area or has/have not been sighted for 30 min. The vessel will then power up slowly.

Construction and support vessels will be required to display lights when operating at night, and deck lights will be required to illuminate work areas. However, use of lights will be limited to areas where work is actually occurring, and all other lights will be extinguished. Lights will be downshielded to illuminate the deck and will not intentionally illuminate surrounding waters, so as not to attract whales or their prey to the area.

### (3) Distance and Noise Level for Cut-Off

(1) During construction, if a marine mammal is detected within 0.5 mi (0.8 km) of a construction vessel, the vessel superintendent or on-deck supervisor will be notified immediately. The vessel's crew will be put on a heightened state of alert. The marine mammal will be monitored constantly to determine if it is moving toward the construction area. The observer is required to report all North Atlantic right whale sightings to NMFS, as soon as possible.

(2) Construction vessels will cease any movement in the construction area if a marine mammal other than a right whale is sighted within or approaching

to a distance of 100 yd (91 m) from the operating construction vessel. Construction vessels will cease any movement in the construction area if a right whale is sighted within or approaching to a distance of 500 yd (457 m) from the operating construction vessel. Vessels transiting the construction area such as pipe haul barge tugs will also be required to maintain these separation distances.

(3) Construction vessels will cease all activities that emit sounds reaching a received level of 120 dB re 1  $\mu$ Pa or higher at 100 yd (91 m) if a marine mammal other than a right whale is sighted within or approaching to this distance, or if a right whale is sighted within or approaching to a distance of 500 yd (457 m), from the operating construction vessel. The back-calculated source level, based on the most conservative cylindrical model of acoustic energy spreading, is estimated to be 139 dB re 1  $\mu$ Pa.

(4) Construction may resume after the marine mammal is positively reconfirmed outside the established zones (either 500 yd (457 m) or 100 yd (91 m), depending upon species).

### (4) Vessel Strike Avoidance

(1) While under way, all construction vessels will remain 0.6 mi (1 km) away from right whales and all other whales to the extent possible and 100 yd (91 m) away from all other marine mammals to the extent physically feasible given navigational constraints as required by NMFS.

(2) MMOs will direct a moving vessel to slow to idle if a baleen whale is seen less than 0.6 mi (1 km) from the vessel.

(3) All construction vessels 300 gross tons or greater will maintain a speed of 10 knots (18.5 km/hr) or less. Vessels less than 300 gross tons carrying supplies or crew between the shore and the construction site must contact the appropriate authority or the construction site before leaving shore for reports of recent right whale sighting and, consistent with navigation safety, restrict speeds to 10 knots (18.5 km/hr) or less within 5 mi (8 km) of any recent sighting location.

(4) Vessels transiting through the Cape Cod Canal and CCB between January 1 and May 15 will reduce speeds to 10 knots (18.5 km/hr) or less, follow the recommended routes charted by NOAA to reduce interactions between right whales and shipping traffic, and avoid aggregations of right whales in the eastern portion of CCB. To the extent practicable, pipe deliveries will be avoided during the January to May time frame. In the unlikely event the Canal is closed during construction,

the pipe haul barges will transit around Cape Cod following the Boston TSS and all measures for the SRVs when transiting to the Port.

(5) Construction and support vessels will transit at 10 knots or less in the following seasons and areas, which either correspond to or are more restrictive than the times and areas in NMFS' final rule (73 FR 60173, October 10, 2008) to implement speed restrictions to reduce the likelihood and severity of ship strikes of right whales:

- Southeast U.S. SMA from November 15 through April 15, which is bounded by the shoreline, 31° 27' N. (i.e., the northern edge of the Mandatory Ship Reporting System (MSRS) boundary) to the north, 29° 45' N. to the south, and 80° 51.6' W. (i.e., the eastern edge of the MSRS boundary);

- Mid-Atlantic SMAs from November 1 through April 30, which encompass the waters within a 30 nm (55.6 km) area with an epicenter at the midpoint of the COLREG demarcation line crossing the entry into the following designated ports or bays: (a) Ports of New York/New Jersey; (b) Delaware Bay (Ports of Philadelphia and Wilmington); (c) Entrance to the Chesapeake Bay (Ports of Hampton Roads and Baltimore) (d) Ports of Morehead City and Beaufort, North Carolina; (e) Port of Wilmington, North Carolina; (f) Port of Georgetown, South Carolina; (g) Port of Charleston, South Carolina; and (h) Port of Savannah, Georgia;

- CCB SMA from January 1 through May 15, which includes all waters in CCB, extending to all shorelines of the Bay, with a northern boundary of 42° 12' N. latitude;

- Off Race Point SMA year round, which is bounded by straight lines connecting the following coordinates in the order stated: 42° 30' N. 69° 45' W.; thence to 42° 30' N. 70° 30' W.; thence to 42° 12' N. 70° 30' W.; thence to 42° 12' N. 70° 12' W.; thence to 42° 04' 56.5" N. 70° 12' W.; thence along mean high water line and inshore limits of COLREGS limit to a latitude of 41° 40' N.; thence due east to 41° 41' N. 69° 45' W.; thence back to starting point; and

- GSC SMA from April 1 through July 31, which is bounded by straight lines connecting the following coordinates in the order stated:

42° 30' N. 69° 45' W.  
41° 40' N. 69° 45' W.  
41° 00' N. 69° 05' W.  
42° 09' N. 67° 08' 24" W.  
42° 30' N. 67° 27' W.  
42° 30' N. 69° 45' W.

## (5) Passive Acoustic Monitoring (PAM) Program

In addition to visual monitoring, Neptune will utilize a PAM system to aid in the monitoring and detection of North Atlantic right whales in the proposed project construction area. The PAM system will be capable of detecting and localizing (range and bearing) North Atlantic right whales in real-time with the use of six strategically placed acoustic bouys. When combined with the action and communication plan, Neptune has the capability to make timely decisions and undertake steps to minimize the potential for collisions between these marine mammals and construction vessels. An array of auto-detection monitoring bouys moored at regular intervals in a circle surrounding the site of the terminal and associated pipeline construction were installed in 2008 and will be redeployed for the 2009 construction season. Passive acoustic devices are actively monitored for detections by a NMFS-approved bioacoustic technician.

Nineteen permanent archival acoustic recording units (ARUs) or pop-ups have been arranged around the Port and pipeline to maximize auto detection and to provide localization capability. The bouys are designed to monitor the sound output from construction activities to assess construction impacts on marine mammals and to aid in the estimation of takes during the construction period.

## (6) Other Measures

Operations involving excessively noisy equipment will “ramp-up” sound sources, as long as this does not jeopardize the safety of vessels or construction workers, allowing whales a chance to leave the area before sounds reach maximum levels. Contractors will be required to utilize vessel-quieting technologies that minimize sound. Contractors will be required to maintain individual Spill Prevention, Control, and Containment Plans in place for construction vessels during construction.

An environmental coordinator with experience coordinating projects to monitor and minimize impacts to marine mammals will be onsite to coordinate all issues concerning marine protected species, following all of the latest real-time marine mammal movements. The coordinator will work to ensure that environmental standards are adhered to and adverse interactions between project equipment and marine mammals do not occur.

*Port Operation Minimization Measures*

## (1) Visual Monitoring and Vessel Strike Avoidance

Prior to entering areas where right whales are known to occur, including the GSC and SBNMS, SRV operators will consult NAVTEX, NOAA Weather Radio, NOAA’s Right Whale Sighting Advisory System (SAS), or other means to obtain the latest Dynamic Management Area (DMA) information. Vessel operators will also receive active detections from the passive acoustic array prior to and during transit through the northern leg of the Boston Harbor TSS where the bouys are installed.

In response to active DMAs or acoustic detections, SRVs will take appropriate actions to minimize the risk of striking whales, including reducing speed to 10 knots (18.5 km/hr) maximum and posting additional observers. Designated crew members will undergo NMFS-approved training regarding marine mammal presence and collision avoidance procedures.

Vessels approaching and departing the port from LNG supply locations will enter the Boston Harbor TSS as soon as practicable and remain in the TSS until the Boston Harbor Precautionary Area. SRVs and support vessels will travel at 10 knots (18.5 km/hr) maximum when transiting to/from the port outside of the TSS. SRVs will abide by the same restrictions as required in the “Vessel Strike Avoidance” subsection for “Port Construction Minimization Measures” in the Off Race Point and GSC SMAs for operations unless hydrographic, meteorological, or traffic conditions dictate an alternative speed to maintain the safety and maneuverability of the vessel. In such cases where speeds in excess of the 10-knot (18.5 km/hr) speed maximums are required, the reasons for the deviation, the speed at which the vessel is operated, the area, and the time and duration of such deviation will be documented in the logbook of the vessel and reported to NMFS’ Northeast Region Ship Strike Coordinator.

All vessels will comply with the year-round MSRS. If whales are seen within 0.6 mi (1 km) of the buoy, then the SRVs will wait until the whale(s) leave(s) the area before departing.

## (2) PAM Program

The array of auto-detection monitoring bouys described previously in the “Passive Acoustic Monitoring (PAM) Program” subsection of this document will be monitored during the LNG Port operations and will provide near real-time information on the presence of vocalizing whales in the

shipping lanes. Additionally, the ARUs, discussed in that subsection, will be in place for 5 years following initiation of operations to monitor the actual acoustic output of port operations and to alert NOAA to any unanticipated adverse effects of port operations, such as large-scale abandonment of the area or greater acoustic impacts than predicted through modeling.

**Proposed Reporting Requirements**

During construction, weekly status reports will be provided to NMFS utilizing standardized reporting forms. In addition, the Neptune Port Project area is within the MSRA, so all construction and support vessels will report their activities to the mandatory reporting section of the USCG to remain apprised of North Atlantic right whale movements within the area. All vessels entering and exiting the MSRA will report their activities to WHALESNORTH. Any right whale sightings will be reported to the NMFS SAS.

During all phases of project construction, sightings of any injured or dead marine mammals will be reported immediately to the USCG and NMFS, regardless of whether the injury or death is caused by project activities. Sightings of injured or dead marine mammals not associated with project activities can be reported to the USCG on VHF Channel 16 or to NMFS Stranding and Entanglement Hotline. In addition, if the injury or death was caused by a project vessel (e.g., SRV, support vessel, or construction vessel), USCG must be notified immediately, and a full report must be provided to NMFS, Northeast Regional Office. The report must include the following information: (1) the time, date, and location (latitude/longitude) of the incident; (2) the name and type of vessel involved; (3) the vessel’s speed during the incident; (4) a description of the incident; (5) water depth; (6) environmental conditions (e.g., wind speed and direction, sea state, cloud cover, and visibility); (7) the species identification or description of the animal; and (8) the fate of the animal.

An annual report on marine mammal monitoring and mitigation will be submitted to NMFS Office of Protected Resources and NMFS Northeast Regional Office within 90 days after the expiration of the IHA. The weekly reports and the annual report should include data collected for each distinct marine mammal species observed in the project area in the Massachusetts Bay during the period of LNG facility construction. Description of marine mammal behavior, overall numbers of

individuals observed, frequency of observation, and any behavioral changes and the context of the changes relative to construction activities shall also be included in the annual report. Additional information that will be recorded during construction and contained in the reports include: date and time of marine mammal detections (visually or acoustically), weather conditions, species identification, approximate distance from the source, activity of the vessel or at the construction site when a marine mammal is sighted, and whether thrusters were in use and, if so, how many at the time of the sighting.

#### Endangered Species Act (ESA)

On January 12, 2007, NMFS concluded consultation with MARAD and USCG under section 7 of the ESA on the proposed construction and operation of the Neptune LNG facility and issued a Biological Opinion. The finding of that consultation was that the construction and operation of the Neptune LNG terminal may adversely affect, but is not likely to jeopardize, the continued existence of northern right, humpback, and fin whales, and is not likely to adversely affect sperm, sei, or blue whales and Kemp's ridley, loggerhead, green, or leatherback sea turtles. Issuance of this IHA will not have any impacts beyond those analyzed in that consultation.

#### National Environmental Policy Act

MARAD and the USCG released a Final EIS/Environmental Impact Report (EIR) for the proposed Neptune LNG Deepwater Port. A notice of availability was published by MARAD on November 2, 2006 (71 FR 64606). The Final EIS/EIR provides detailed information on the proposed project facilities, construction methods, and analysis of potential impacts on marine mammals. The Final EIS/EIR is incorporated as part of the MMPA record of decision (ROD) for this action.

NMFS was a cooperating agency in the preparation of the Draft and Final EISs based on a Memorandum of Understanding related to the Licensing of Deepwater Ports entered into by the U.S. Department of Commerce along with 10 other government agencies. On June 3, 2008, NMFS adopted the USCG and MARAD FEIS and issued a separate ROD for issuance of authorizations pursuant to sections 101(a)(5)(A) and (D) of the MMPA for the construction and operation of the Neptune LNG Port facility.

#### Preliminary Determinations

NMFS has preliminarily determined that the impact of construction and operation of the Neptune Port Project may result, at worst, in a temporary modification in behavior of small numbers of certain species of marine mammals that may be in close proximity to the Neptune LNG facility and associated pipeline during its construction and operation. These activities are expected to result in some local short-term displacement, resulting in no more than a negligible impact on the affected species or stocks of marine mammals. The provision requiring that the activity not have an unmitigable adverse impact on the availability of the affected species or stock for subsistence use does not apply for this proposed action as there is no such uses of these species or stocks in the proposed project area.

This preliminary determination is supported by measures described earlier in this document under "Proposed Mitigation and Monitoring Measures," "Reporting Requirements," and MARAD's ROD (and NMFS' Biological Opinion on this action). As a result of the described mitigation measures, no take by injury or death is requested, anticipated, or proposed to be authorized, and the potential for temporary or permanent hearing impairment is very unlikely due to the relatively low sound source levels (and consequently small zone of impact for hearing-related effects). The likelihood of such effects would be avoided through the incorporation of the proposed shut-down mitigation measures mentioned in this document. While the number of marine mammals that may be harassed will depend on the distribution and abundance of marine mammals in the vicinity of the Port facility during construction and operation, the estimated number of marine mammals to be harassed is small.

#### Proposed Authorization

As a result of these preliminary determinations, NMFS proposes to issue an IHA to Neptune for the taking (by Level B harassment only) incidental to construction and operation of the Neptune Port provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated.

Dated: May 1, 2009.

**Katy M. Vincent,**

*Acting Deputy Director, Office of Protected Resources, National Marine Fisheries Service.*

[FR Doc. E9-10681 Filed 5-7-09; 8:45 am]

**BILLING CODE 3510-22-S**

#### DEPARTMENT OF COMMERCE

##### Foreign-Trade Zones Board

[Order No. 1614]

##### Termination of Foreign-Trade Subzone 22G; Sanofi-Aventis, Des Plaines, IL

Pursuant to its authority under the Foreign-Trade Zones Act of June 18, 1934, as amended (19 U.S.C. 81a-81u), and the Foreign-Trade Zones Board Regulations (15 CFR Part 400), the Foreign-Trade Zones Board (the Board) adopts the following Order:

*Whereas*, on July 20, 1994, the Foreign-Trade Zones Board issued a grant of authority to the Illinois International Port District authorizing the establishment of Foreign-Trade Subzone 22G at the Sanofi-Aventis facility, Des Plaines, Illinois (Board Order 700, 59 FR 38431, 07/27/94);

*Whereas*, the Illinois International Port District has advised the Board that zone procedures are no longer needed at the facility and requested voluntary termination of Subzone 22G (FTZ Docket 39-2008);

*Whereas*, the request has been reviewed by the FTZ Staff and U.S. Customs and Border Protection officials, and approval has been recommended;

*Now, therefore*, the Foreign-Trade Zones Board terminates the subzone status of Subzone 22G, effective this date.

Signed at Washington, DC, this 24th day of April, 2009.

**Ronald K. Lorentzen,**

*Acting Assistant Secretary of Commerce for Import Administration, Alternate Chairman, Foreign-Trade Zones Board.*

Attest:

**Andrew McGilvray,**

*Executive Secretary.*

[FR Doc. E9-10799 Filed 5-7-09; 8:45 am]

**BILLING CODE 3510-DS-P**

#### DEPARTMENT OF COMMERCE

##### Economic Development Administration

##### Notice of Petitions by Firms for Determination of Eligibility To Apply for Trade Adjustment Assistance

**AGENCY:** Economic Development Administration, Department of Commerce

**ACTION:** Notice and Opportunity for Public Comment.

Pursuant to Section 251 of the Trade Act of 1974 (19 U.S.C. 2341 *et seq.*), the Economic Development Administration (EDA) has received petitions for certification of eligibility to apply for