

DEPARTMENT OF COMMERCE**National Oceanic and Atmospheric Administration**

RIN 0648-X116

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

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

ACTION: Notice; issuance of incidental harassment authorization.

SUMMARY: In accordance with the Marine Mammal Protection Act (MMPA) regulations, notification is hereby given that NMFS has issued an incidental harassment authorization (IHA) to Neptune LNG, L.L.C. (Neptune) to take, by harassment, small numbers of several species of marine mammals incidental to construction of an offshore liquefied natural gas (LNG) facility in Massachusetts Bay for a period of 1 year.

DATES: Effective July 1, 2008, through June 30, 2009.

ADDRESSES: A copy of the IHA and application are available by writing 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 or by telephoning the contact listed here. 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 here (**FOR FURTHER INFORMATION CONTACT**) or online at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. Documents cited in this notice may be viewed, by appointment, during regular business hours, at the aforementioned address.

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://dms.dot.gov> under the docket number 22611.

FOR FURTHER INFORMATION CONTACT: Candace Nachman or Ken Hollingshead, Office of Protected Resources, NMFS, (301) 713-2289.

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 TMall 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 IHA to take small numbers of several species of marine mammals, by Level B (behavioral) harassment, for a period of 1 year,

incidental to construction of an offshore LNG facility in Massachusetts Bay.

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 (m³). 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 HublineTM (HublineTM) 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 harassTMment, incidental to construction of the facility and its pipeline, Neptune has applied for a 1-year IHA for activities commencing in July 2008. Detailed information on these activities can be found in the MARAD/USCG Final EIS on the Neptune Project (see **ADDRESSES** for availability).

Detailed information on the LNG facility's pipeline and port construction and noise generated from these activities was included in NMFS' Notice of Proposed IHA, which published in the **Federal Register** on February 19, 2008 (73 FR 9092). No changes have been made to these proposed activities.

Comments and Responses

A notice of receipt and request for public comment on the application and proposed authorization was published on February 19, 2008 (73 FR 9092). During the 30-day public comment period, NMFS received the following comments from the Marine Mammal Commission (MMC), the Whale Center of New England (WCNE), Nahant Safer Waters in Massachusetts, Inc. (SWIM), and one private citizen.

Comment 1: The MMC recommends issuance of the IHA provided that all mitigation, monitoring, and reporting measures identified in the proposed IHA **Federal Register** notice (73 FR 9092, February 19, 2008) are included in the authorization.

Response: NMFS agrees with the MMC's recommendation. All measures proposed in the initial **Federal Register** notice are included in the authorization.

Comment 2: The MMC recommends that the beginning of construction activities in 2009 be postponed until June 1 instead of beginning on May 1. The MMC notes that NMFS' proposed vessel speed limits in the area from January 1 to May 15, to reduce the likelihood of vessel collisions with the North Atlantic right whale, indicate that right whales may be present into the middle of May. Delaying construction until June 1 will allow a two-week buffer to increase the likelihood that all right whales have left the area.

Response: The authorization requires Neptune to employ both a visual monitoring program and a passive acoustic monitoring (PAM) program for detection of North Atlantic right whales and other marine mammals in the vicinity of construction activities. Both of these programs were developed in accordance with recommendations made by the NMFS Northeast Region during its section 7 consultation under the Endangered Species Act (ESA) and by the Stellwagen Bank National Marine Sanctuary (SBNMS). All construction activities will be conducted under a level of heightened awareness if a North Atlantic right whale is acoustically detected by the PAM devices. Construction will cease if a whale is detected either visually within 500 yards (457 m) of construction activities or acoustically and will not resume until the animal is known to have left

the area. Therefore, NMFS believes that the use of this dual monitoring program will reduce the potential for impacts to the North Atlantic right whale to the lowest level practicable, even with construction activities resuming on May 1, 2009.

Comment 3: The MMC notes that construction activities producing loud noises could occur at night and under poor sighting conditions when visual detections 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. The MMC states that the use of PAM provides additional, but limited, means of detection of vocalizing marine mammals in the vicinity. The MMC recommends that a real-time passive acoustic array be used at all times during the construction period as a supplement to visual monitoring efforts.

Response: NMFS agrees with the MMC that PAM should be used at all times during the construction period. A detailed description of how PAM will be used to assist visual monitoring is provided in the draft Prevention, Monitoring, and Mitigation Plan for the Construction Phase: Neptune Project, Massachusetts Bay (Neptune, 2008). The PAM primarily serves as an early warning and supplemental measure for marine mammal visual monitoring provided by two marine mammal observers (MMOs) on each construction vessel. The PAM will be a near real-time system. Neptune will equip MMOs with night vision devices for marine mammal monitoring during low-light hours.

Comment 4: The MMC and WCNE both concur with NMFS' finding in the proposed IHA **Federal Register** notice that the take numbers requested in Neptune's application seem a bit low (73 FR 9092, February 19, 2008). Therefore, the MMC recommends that NMFS 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.

Response: NMFS recalculated the cetacean density data and estimated take number based on the compilation of a large number of databases published by the National Centers for Coastal Ocean Science (NCCOS, 2006). The recalculated density numbers were then multiplied by the area to be ensonified to 120 dB, which is used as the threshold for estimating the onset of Level B (behavioral) harassTMment for continuous sounds. The number of days

that construction activities will occur were also included. Please refer to the "Estimates of Take by Harassment" section found later in this document for a detailed description of how the new take numbers were calculated.

Comment 5: The WCNE questions why only acoustic models were used to determine the zone of influence (ZOI) created by construction activities for this project. Referring to the Northeast Gateway LNG Port (NEG or NEG Port), the WCNE states that there was a significant amount of data gathered on the sounds created by, and the zone of impact from that project, through the use of required passive acoustic arrays. The WCNE suggests that these data should be analyzed and made available to test whether the ZOI suggested by Neptune's acoustic models are supported. Until such actual results are available and analyzed, the WCNE suggests that no action should take place on the current permit application.

Response: The acoustic array in place in Massachusetts Bay near the NEG Port and the site of construction for Neptune has not been used for sound source verification of vessel noise and other acoustic activities that occurred last year during construction of the NEG Port. Similarly, they were not used to validate the ZOI around the NEG Port construction site. NMFS has determined that in the absence of any in-water measurements, acoustic models must be used to determine the ZOI. The modeling conducted very early in the planning stages for the project, before a company had been contracted to perform the Neptune Port construction, most likely overestimates the 120-dB ZOI. In a letter submitted by Neptune to NMFS on May 28, 2008, Neptune indicated that certain vessels were used in the modeling as worst case examples. The pipeline construction company now under contract to construct the Neptune Port will not be using a vessel such as the *Britoil 51*, which was used in the modeling and shown to have a broadband source level of 199.7 dB re 1 μ Pa at 1m. Construction will involve vessels closer in characteristics to other vessels that were modeled, creating an area of 120-dB ensonification of approximately 52 km² (15 nm²), not the maximum of approximately 161 km² (47 nm²) predicted in the original modeling.

Comment 6: The WCNE states that in their research efforts on northern Stellwagen Bank in 2006, they identified over 250 individual humpback whales, including 33 mother-calf pairs using standard photo-identification techniques, and even that number is considered an underestimate by the WCNE. Similar numbers, with

similar effort, were identified by the WCNE in 2007. Given the proximity of the project to Stellwagen Bank, the WCNE states that it is possible for any of these animals on any given day to be exposed to project noise of over 120 dB or to other related activities which could disturb them.

Response: NMFS believes a small number of humpback whales might be incidentally taken by Level B harassment if they happen to occur in the ZOI where noise from construction activities reach over 120 dB. However, the maximum size of the ZOI has been recalculated to be 52 km² (15 nm²) with a vessel's dynamic positioning thrusters being operated at the surface. This maximum ZOI would only occur inside the SBNMS' western boundary, in an area that is still northwest of Stellwagen Bank. In addition, between the proposed project area and Stellwagen Bank, there is a steep drop off from the 50-m isobath where construction noise would not propagate as far when compared to at the surface, where the maximum ZOI could occur. Therefore, the identification of 250 individual humpback whales in the northern Stellwagen Bank by the WCNE does not mean that individuals on the Bank would be harassed. To the contrary, the fact that the majority of whales occur within the SBNMS, especially gathering around the Stellwagen Bank, means that fewer whales would be taken by Level B harassment in the vicinity of the project area, which is outside the Sanctuary's boundaries.

Comment 7: Citing the WCNE's own research on humpback whales in the SBNMS and other studies (cited as Seipt *et al.*, 1989), the WCNE states that a more realistic upper bound of the number of animals that may be taken during any given year by the project is more likely to be up to 400 individuals each of humpback, fin, and minke whales, each of which may be taken multiple times on multiple days (no calculation provided).

Response: NMFS cannot evaluate whether the WCNE's estimated take numbers are scientifically supported because the WCNE did not provide any valid calculation indicating how these numbers were assessed. The photo-identification of 250 humpback whales (including 33 mother-calf pairs) in the northern Stellwagen Bank, as mentioned in the previous Comment, does not support the WCNE's take estimate. The research conducted by Seipt *et al.* (1990), titled "Population Characteristics of Individual Fin Whales, *Balaenoptera physalus*, in Massachusetts Bay, 1980-1987," was published in the Fishery Bulletin in

1990. While the study described the use of photo-identification technology on fin whale population studies in Massachusetts Bay and presented fin whale sighting and resighting data between 1980 and 1987, it did not provide any population estimate or density assessment of the species in the study area. Therefore, NMFS does not believe these data can be used for fin whale take estimates in the proposed project area.

In addition, NMFS' own population assessment of the Gulf of Maine humpback stock is 847 whales (Waring *et al.*, 2007). The WCNE's estimated annual take of 400 humpback whales (47 percent of the population) within a maximum 120 dB re 1 μ Pa ZOI of 52 km² (15 nm²) is not scientifically supportable. Likewise, the WCNE's estimated annual take numbers of 400 fin whales, which accounts for 18 percent of the Western North Atlantic population of 2,269 whales (Waring *et al.*, 2007); and 400 minke whales, which is 12 percent of the Canadian East Coast population of 3,312 whales (which are mostly sighted off Nova Scotia and New Brunswick, Canada; Waring *et al.*, 2007); are not good estimates because no valid calculations were provided on how these numbers were derived.

Comment 8: Although the data on the number of right whales that use the area, especially during the winter and early spring, are limited, the WCNE indicates that the data they do have suggests the project site is one of the more frequently used sites within their study area, and acoustic detections of whales in the past two years have been numerous. The WCNE believes it is likely that whales which use Jeffreys Ledge in the fall and Cape Cod Bay (CCB) in the spring transit through the project site. In fall 2007, the WCNE identified over 70 right whales on Jeffreys Ledge in October through December; over 100 individuals were seen in CCB in spring 2007. Hence, the WCNE states that an appropriate estimate of North Atlantic right whales to be harassed by the proposed project would be 100 individuals annually; although if managing conservatively, the actual number might be somewhat higher (no references provided).

Response: Data sets used by the NCCOS (2006), which include survey efforts and sightings data from ship and aerial surveys and opportunistic sources between 1970 and 2005 from a wide range of sources, indicate that right whales spend most of their time across the southern Gulf of Maine in CCB in spring, with highest abundance located over the deeper waters on the northern edge of the Great South Channel and

deep waters parallel to the 100-m (328-ft) isobath of northern Georges Bank and Georges Basin. The data collected by the WCNE focused on CCB, which is 30.4 mi (48.64 km) southeast of the proposed project area, and Jeffreys Ledge, which is approximately 12-14 mi (19-22.5 km) northeast of the proposed project area at its southwestern most point. Both areas have different oceanographic features and ecological characteristics and are more important habitat for right whales than the project area. In addition, Weinrich *et al.* (2006), in their report on the distribution of baleen whales in the Neptune proposed LNG project area, state:

North Atlantic right whales are sporadic visitors to the study area [Neptune project area] during the April to November period. Right whales typically aggregate in [CCB] during the late winter and early spring (Mayo and Marx, 1990), then move east to the Great South Channel during the spring (Kenney and Wishner, 1995). They then move east along the northern edge of Georges Bank, and into the Bay of Fundy and Nova Scotian shelf during the summer and early fall (Kraus *et al.*, 1988; Winn *et al.*, 1986; Baumgartner *et al.*, 2003). Once they leave the Bay of Fundy, pregnant females migrate to the coastal waters of the southern U.S. to calve, while the distribution of much of the rest of the population remains unknown (Winn *et al.*, 1986). Recent work on Jeffreys Ledge, immediately to the north of Cape Ann, has indicated that significant numbers of right whales may use the area as a feeding habitat from October through at least December (Weinrich *et al.*, 2000; Weinrich and Sardi, 2004; Unpublished data).

Right whale sighting plots presented in this report support this statement, and it is consistent with the survey data published in the NCCOS (2006) report, which indicates that right whales do not use the proposed project area regularly, especially during the months for which construction activities are planned. Weekly construction reports submitted by NEG indicated only one visual sighting of a North Atlantic right whale in the NEG project area (which is just south of the Neptune Port) in the month of December. The authorization issued to Neptune does not allow for any construction activities from December 1 through April 30. An acoustic array near the NEG Port construction site detected 11 North Atlantic right whale calls in September, two in October, and two in December. Barring weather delays, construction activities at the Neptune Port in 2008 should be completed in early October. Therefore, NMFS does not believe that the WCNE's estimated annual take of 100 North Atlantic right whales by the proposed project is reasonable, especially given that the WCNE did not provide the calculation

regarding how this take number was assessed.

Comment 9: The WCNE points out that special attention should be given to project activities occurring in the fall. This is a particularly sensitive time for endangered humpback and fin whales, which have been exploiting a new prey source annually since 2000, within the proposed project area, as supported by the studies conducted by Weinrich and Sardi (2005) and as noted in the Neptune LNG Final EIS (USCG and MARAD, 2006). The WCNE states that heavy industrial activity during these months would result in either take levels of these species at far greater levels than during any other month or in habitat displacement altogether. The WCNE notes that while they did see both species feeding in the NEG construction area in fall 2007, there were fewer whales, and those whales were resident for shorter periods, than in the previous three years. Since the WCNE does not have annual measurements of prey biomass, they state that it is possible that this is merely related to annual fluctuations in food availability.

Response: NMFS reviewed the Weinrich and Sardi (2005) report on the distribution of baleen whales in the waters surrounding the Neptune LNG project, but we did not find that the report contained any quantitative analysis of the cetacean density data showing that there is a statistical significance of baleen whales' use of the proposed project area on a seasonal or monthly basis. The cetacean sighting data, plotted in an area that includes most of the SBNMS, part of Massachusetts Bay, the west terminal portion of the Boston Traffic Separation Scheme (TSS), and the proposed project area, clearly show that most humpback, fin, and minke whales were sighted within the SBNMS (Weinrich and Sardi, 2005). NMFS recognizes that there is a potential for take of small numbers of marine mammals by Level B harassment as a result of this project; however, NMFS does not agree with the WCNE that there would be takes at far greater levels during the fall months for humpback and fin whales, as strict monitoring and mitigation measures, described in the "Marine Mammal Mitigation, Monitoring, and Reporting" section later in this document, will be implemented to keep the impacts to the lowest level practicable.

Comment 10: The WCNE states that whales would be harassed not just by exposure to sound sources of over 120 dB re 1 μ Pa, but they may also be disturbed by multiple boats in a limited area. The WCNE cites studies conducted

by Borgaard *et al.* (1999) and Stone and Tasker (2006) on whales affected by continuous activity from dredging coupled with vessel traffic and seismic activities. The WCNE states that in its comments regarding the NEG IHA application in 2007, they recommended that if in the first year [of the project] abundance of any of the key species are notably lower than that of previous years, the IHA should stipulate that project operations should cease until it can be determined if that change was related to project activities or other ecological factors. The WCNE notes that abundance was lower, and they believe that the full impact of the project cannot be assessed until the underlying reasons for the lower whale use can be determined.

Response: It is true that marine mammals may be disturbed by multiple boats in a limited area, especially within the Boston TSS. However, this concern is not related to the issuance of this IHA since the construction of a deepwater LNG facility would only increase vessel traffic in the vicinity by a very small amount, about 1.5 percent (NMFS, 2007). The study by Borgaard *et al.* (1999) cited by the WCNE was focused on the effects of large scale industrial activity, which involved dredging and blasting, on large cetaceans in Bull Arm, Trinity Bay, Newfoundland from 1992 through 1995. The research indicates that humpback whales were more affected by continuous activity from dredging, coupled with vessel traffic, but appeared tolerant of transient blasting and frequent vessel traffic. Individually-identified minke whales were resighted in the industrialized area and appeared tolerant of vessel traffic. Stone and Tasker (2006) in their research analyzed the effects of airgun seismic surveys on marine mammals in UK waters. The airgun used in seismic surveys produces impulse sounds, which is fundamentally different sound in acoustic characteristics from the intermittent noises produced during the proposed deepwater LNG port construction. No blasting will occur during Port construction.

The weekly construction reports submitted by NEG to NMFS during its construction phase do not indicate any large or long-term reactions of marine mammals to the presence of the construction or support vessels. When animals were detected within the ZOI, mitigation measures to reduce the ZOI were implemented immediately. The IHA is issued for a duration of 1 year. NMFS will evaluate any new scientific information that may surface during the project period and assess any impacts that may result due to the deepwater

port construction and operation. Based on the new information and monitoring reports, NMFS will determine whether any additional monitoring or mitigation measures are warranted for future authorizations.

Comment 11: The WCNE notes that Neptune's application falsely states, "Pinnipeds are unlikely to be present during summer and will not be affected." The WCNE states that they have many sighting records of harbor seals at sea in the project area during the summer months. Hence, they need to be included in any IHA request for the area during summer.

Response: NMFS concurs with the WCNE's assertion that harbor seals should be included in the take authorization. Harbor seals have been added to the IHA (see the "Marine Mammals Affected by the Activity" and "Estimates of Take by Harassment" sections later in the document).

Comment 12: The WCNE requests that Neptune withdraw the IHA application and resubmit it with more realistic numbers, such as those posed by the WCNE above (i.e., 400 humpback, 400 fin, 400 minke, and 100 North Atlantic right whales, all of which may be taken multiple times over multiple days). They also suggest that Neptune be required to obtain a Letter of Authorization (LOA), rather than an IHA. The WCNE feels that the take levels they posed are more realistic, and coupled with the possibility of displacing animals from preferred food sources, seem to them to be "well above" the levels of "incidental harassment" for which the permit category is intended.

Response: NMFS has revised the incidental harassment take estimates for project construction. The development of these numbers is explained in the "Estimates of Take by Harassment" section found later in this document. Also, as stated in responses above, NMFS does not believe the WCNE's estimated take numbers are scientifically supported, especially given that the WCNE did not provide any valid calculations indicating how these numbers were assessed. NMFS has defined "incidental harassment" in 50 CFR 216.103 as "...an accidental taking. This does not mean that the taking is unexpected, but rather it includes those takings that are infrequent, unavoidable, or accidental." NMFS believes that incidental harassment of marine mammals near the Neptune Port construction site will be infrequent.

Comment 13: The WCNE states that they would also be amenable to NMFS issuing the IHA as requested by Neptune in their application to allow

the annual take of two North Atlantic right whales, one minke whale, two fin whales, three humpback whales, and the other take levels requested in the application. The WCNE states, "If this option is taken, we would strongly urge that the permit include an explicit statement of the maximum number of annual violations that can take place before ALL port construction or operations must cease ANY activity which is likely to harass a marine mammal, either by exposing to sounds above 120 dB or by resulting in a behavioral disturbance, including displacement." In order to determine when such a violation occurs, the WCNE requests that Neptune produce real-time, daily plots of sound levels as detected by the acoustic arrays, which can be plotted against independent sightings of marine mammals, as well as all of the acoustic detections of marine mammals by Neptune's array.

Response: The numbers cited by the WCNE from the Neptune application were requests for Port operations, not construction. The requested take numbers for construction in Neptune's application are slightly higher (but only by a few individuals for each species). In its proposed IHA **Federal Register** notice (73 FR 9092, February 19, 2008), NMFS indicated that the take levels requested by Neptune in its application for construction were too low. NMFS reevaluated species density, the area to be ensonified to 120 dB, and number of days of construction to develop more realistic take levels (see the "Estimates of Take by Harassment" section found later in this document).

The taking of marine mammals in a manner not described in the IHA is strictly prohibited. Any violation of the IHA is subject to prosecution; therefore, NMFS does not include "a maximum number" of violations that may be committed before enforcement action is taken against the holder. To this end, the IHA issued to Neptune contains the following conditions:

The taking, by incidental Level B harassment only, is limited to the species listed [in the IHA]. The taking by Level A harassment, injury, or death of these species, or the taking of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this Authorization; and

Any person who violates any provision of this IHA is subject to civil and criminal penalties, permit sanctions, and forfeiture as authorized under the MMPA.

Comment 14: The WCNE urges that there be an explicit stipulation that blasting activities are specifically not covered by the IHA, and such activities would require applying for a new permit and a new public review process.

Response: NMFS concurs with the WCNE. The IHA does not authorize blasting to be used for port construction at the Neptune site. If, during the course of the construction, an unexpected need for blasting arises, the blasting cannot take place until a blasting plan is submitted to the Federal Energy Regulatory Commission (FERC) and a Blasting Mitigation Plan prepared in consultation with NOAA for submittal to, and approval by, FERC. A new application would need to be submitted to NMFS and reviewed in the same manner as the original IHA application.

Comment 15: SWIM notes that the endangered whales that frequent the waters of Massachusetts Bay are utterly dependent upon their hearing and their acoustic "sonar" for navigation, finding food, and survival, and that these animals do not remain wholly in the bounds of the SBNMS. SWIM endorses the comments made by the WCNE.

Response: NMFS analyzed the distribution of endangered whales in Massachusetts Bay and determined that TMall numbers of these populations may be impacted by port construction activities but also determined that the activities would have a negligible impact. Several mitigation and monitoring measures are required by the IHA to reduce the impact to the lowest level practicable (see the "Marine Mammal Mitigation, Monitoring, and Reporting" section later in this document). Responses to the comments submitted by the WCNE have been provided previously.

Comment 16: One commenter opposed the issuance of permits that allows the killing of marine mammals.

Response: NMFS does not believe that the authorized activities will result in the death (or injury) of any marine mammals, nor does this IHA authorize any marine mammal mortality (or injury).

Marine Mammals Affected by the Activity

Marine mammal species that could occur within the Neptune facility impact area include several species of cetaceans and pinnipeds: North Atlantic right, blue, fin, sei, minke, humpback, killer, long-finned pilot, and sperm whales, Atlantic white-beaked, Atlantic white-sided, bottlenose, common, Risso's, and striped dolphins, harbor porpoise, and gray, harbor, harp, and hooded seals. 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 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.*, 2007), which is available at: <http://www.nefsc.noaa.gov/nefsc/publications/tm/tm205/>. An updated 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 was 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 Great South Channel, and northward alongside Cape Cod to Stellwagen Bank and Jeffreys Ledge. The relative abundance of whales increased 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 increased 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 Great South Channel 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 persisted in all seasons except winter, when humpbacks remained 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 Great South Channel.

Fin Whale

Spatial patterns of habitat utilization by fin whales were very similar to those of humpback whales. Spring and summer high-use areas followed 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 Great South Channel (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 was 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 SBNMS was used more frequently than the northern portion in all months except winter, when high abundance was recorded over the northern tip of Stellwagen Bank. In addition to Stellwagen Bank, high abundance in winter was 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 was 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, Great South Channel, and Georges Shoals on Georges Bank. Minke whales were 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 supported high relative abundance. Very low densities of minke whales remained throughout most of the southern Gulf of Maine in winter.

North Atlantic Right Whale

North Atlantic right whales were 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 Great South Channel 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 CCB, over Platts Bank and around Cashes Ledge. Lower relative abundance was estimated over deep-water basins including Wilkinson Basin, Rodgers Basin, and Franklin Basin. In the summer months, right whales moved 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 was found north of the 100-m (328-ft) isobath at the Great South Channel and over the deep slope waters and basins along the northern edge of Georges Bank. The waters between Fippennies Ledge and Cashes Ledge were also estimated as high-use areas. In the fall months, right whales were 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 occurred along the southern edge of the Bank.

Pilot Whale

Pilot whales arrived in the southern Gulf of Maine in spring, with highest abundance in the region occurring in summer and fall. Summer high-use areas included the slopes of northern Georges Bank along the 100-m (328-ft) isobath and pilot whales made extensive use of the shoals of Georges Bank (<60 m, <97 ft, depth). Similarly, fall distributions were also primarily along the slopes of northern Georges Bank, but with high-use areas also occurring in the deep-water basins and ledges of the south-central Gulf of Maine. Within SBNMS, pilot whales were sighted infrequently and were most often estimated at low density. CCB and southern SBNMS were the only locations with pilot whale sightings for winter.

Atlantic White-sided Dolphin

In spring, summer and fall, Atlantic white-sided dolphins were 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 Great South Channel to Stellwagen Bank, Jeffreys Ledge, Platts Bank, and Cashes Ledge. In spring, high-use areas existed in the Great South Channel, 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 was a shift and expansion of habitat toward the east and northeast. High-use areas were identified along most of the northern edge of Georges Bank between the 50- and 200-m (164- and 656-ft) isobaths and northward from the Great South

Channel along the slopes of Davis Bank and Cape Cod. High sightings were also recorded over Truxton Swell, Wilkinson Basin, Cashes Ledge and the bathymetrically complex area northeast of Platts Bank. High sightings of white-sided dolphin were 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, were more concentrated than the dolphins and porpoises. They utilized a corridor that extended 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 supported a high abundance of baleen whales throughout the year. Species richness maps indicated 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 Great South Channel. The southern edge of Stellwagen Bank and the waters around the northern tip of Cape Cod were 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 were 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).

Harbor Seal and Gray Seal

In the U.S. western North Atlantic, both harbor and gray seals were 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 had 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 were often seen off the coast from New England to Labrador, within U.S. waters, only ^TMall 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 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.

Sound from Port and pipeline construction will cause some possible disturbance to small numbers of cetaceans and pinnipeds. 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 μ Pa within 0.2 mi (0.3 km) of the source.

During construction of the Port and pipeline, underwater sound levels will be temporarily elevated. These elevated 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 likelihood of a vessel strike of a marine mammal during pipe laying and trenching operations is low since equipment will be towed at very slow speeds (approximately 5 ft/min, 1.5 m/min). 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.

Using conservative estimates of both marine mammal densities in the Project area and the size of the 120-dB ZOI, the calculated number of individual marine mammals for each species that could potentially be harassed annually is small. NMFS concluded that there would be no biologically significant effects on the survival and reproduction of these species or stocks. Please see the "Estimates of Take by Harassment" section for the calculation of these numbers.

Estimates of Take by Harassment

There are three general types of sounds recognized by NMFS: continuous, intermittent (or transient), and pulsed. 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). Construction of the Port will not cause pulsed sounds.

The sound sources of potential concern are continuous and intermittent sound sources, including underwater noise generated during pipeline/flowline construction. Both continuous and intermittent noise sources are subject to NMFS' 120 dB re 1 μ Pa threshold for determining levels of continuous underwater noise that may result in the disturbance of marine mammals.

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 km² (15 nm²), 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 km² (14.3 nm²). (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 estimated to generate broadband underwater source levels in the range of 180 dB re 1 μ Pa at 1m, similar to several of the vessels modeled by JASCO for Neptune and not in the range of 200 dB re 1 μ 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.

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 km² (15 nm²) 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 that will produce sounds of 120 dB or greater. These numbers represent approximately 15, 2.5, 18, 1, 0.95, and 1.5 percent of the populations for these species in the western North Atlantic, respectively. There is no danger of injury, death, or hearing impairment from the exposure to these noise levels.

In addition, harbor porpoises and harbor 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 minimum population estimates for the Gulf of Maine/Bay of Fundy stock of harbor porpoise and the western North Atlantic stock of harbor seal are 60,970 and 91,546, respectively (Waring *et al.*, 2007). 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 (less than two percent) 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 percent for humpback whales and 15 percent for North Atlantic right whales and no more than 2.5 percent of any other species).

Potential Impacts on Habitat

Construction of the Neptune Port and pipeline could affect marine mammal habitat in several ways: seafloor disturbance, increased turbidity, and generation of additional underwater sound in the area. Construction

activities will temporarily disturb 418 acres (1.7 km²) of seafloor (11 acres, 0.04 km², at the Port, 85 acres, 0.3 km², along the pipeline route, and an estimated 322 acres, 1.3 km², due to anchoring of construction and installation vessels). 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™ (Algonquin Gas Transmission L.L.C., 2004). Post-construction monitoring of the HubLine™ 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 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.

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 to the extent benthic prey species are displaced or destroyed by construction activities. Affected species are expected to recover soon after construction ceases and will represent only a small fraction of food available to marine mammals in the area.

Marine Mammal Mitigation, Monitoring, and Reporting

Port Construction Minimization Measures

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.

Construction activities must be suspended immediately and NMFS contacted if a dead or injured marine mammal is found in the vicinity of the project area, and the death or injury of the animal could be attributable to the LNG facility construction. Activities will not resume until review and approval is given by NMFS.

Visual Monitoring Program

The Neptune Project will employ two 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/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. The primary observer will act as the identification specialist, and the secondary observer will serve as data recorder and also assist with identification. Both observers will have responsibility for monitoring for the presence of marine mammals. All observers will 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 any 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 minutes every hour. 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 possible and their relative position in relation to the vessel 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 minutes. 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.

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 μ 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 μ 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).

Vessel Strike Avoidance

(1) While moving, 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 within 0.6 mi (1 km) of 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) All 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 correspond to times and areas in NMFS' proposed rule (71 FR 36299, June 26, 2006) to implement speed restrictions to reduce the likelihood and severity of ship strikes of right whales:

- Southeast U.S. Seasonal Management Area (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.;

- Off Race Point SMA year round, which is bounded by straight lines

connecting the following coordinates in the order stated:

42° 30' N. 70° 30' W.
42° 30' N. 69° 45' W.
41° 40' N. 69° 45' W.
41° 40' N. 69° 57' W.
42° 04.8' N. 70° 10' W.
42° 12' N. 70° 15' W.
42° 12' N. 70° 30' W.
42° 30' N. 70° 30' W.; and

- Great South Channel 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.
42° 30' N. 67° 27' W.
42° 09' N. 67° 08.4' W.
41° 00' N. 69° 05' W.
41° 40' N. 69° 45' W.
42° 30' N. 69° 45' W.

PAM Program

In addition to visual monitoring, Neptune will utilize a PAM system to aid in the monitoring and detection of vocalizing marine mammals in the project area. Neptune has engaged personnel from NMFS and the SBNMS regarding available passive acoustic technology that could be used to enhance the PAM program.

The PAM system will be capable of detecting, localizing (range and bearing), and classifying marine mammals in near real-time. When combined with an action and communication plan, Neptune will have the capability to make timely decisions and undertake steps to minimize the potential for collisions between marine mammals and construction vessels. The PAM system for the Neptune project involves the installation of an array of auto-detection monitoring buoys moored at regular intervals in a circle surrounding the site of the terminal and associated pipeline construction. Buoys will be arranged to maximize auto detection and provide localization capability. With the existing technology, this would require six buoys moored every 5 nm (9.3 km) to provide some overlap in coverage. The buoys are designed to monitor the sound output from construction activities to ensure predicted levels are not exceeded and to detect the presence of vocally active marine mammals. Passive acoustic devices will be actively monitored for detections by a NMFS-approved bioacoustic technician.

Other Measures

Mesh grates will be used during flooding and hydrostatic testing of the pipeline and flowlines to minimize impingement and entrainment of marine mammals. 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.

Reporting

During construction, weekly status reports will be provided to NMFS utilizing standardized reporting forms. In addition, the Neptune Port Project area is within the Mandatory Ship Reporting Area (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. 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. Any right whale sightings will be reported to the NMFS Sighting Advisory System.

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 must include data collected for each distinct marine mammal species observed in the project area in Massachusetts Bay during the period of Port 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 or not thrusters were in use and how many at the time of the sighting.

ESA

On January 12, 2007, NMFS concluded consultation with MARAD and the USCG under section 7 of the ESA on the proposed construction and operation of the Neptune LNG facility. The finding of that consultation was that the construction and operation of the Neptune LNG terminal 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. Because the issuance of an IHA to Neptune under section 101(a)(5)(D) of the MMPA is a Federal action, NMFS also conducted a section 7 consultation, and it was determined that issuance of the IHA will not have effects on listed species beyond what was previously analyzed.

National Environmental Policy Act

MARAD and the USCG released a Final EIS 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 provides detailed information on the proposed project facilities, construction methods, and analysis of potential impacts on marine mammals. The Final

EIS 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. NMFS has adopted the USCG and MARAD FEIS and issued a separate ROD for issuance of the IHA.

Determinations

NMFS has determined that the impact of construction of the Neptune Port Project may result, at worst, in a temporary modification in behavior of TMall numbers of certain species of marine mammals that may be in close proximity to the Neptune LNG facility and associated pipeline during its construction. 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 action.

These determinations are supported by measures described earlier in this document under “Marine Mammal Mitigation, Monitoring, and Reporting” 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 authorized, and the potential for temporary or permanent hearing impairment is very unlikely due to the relatively low noise levels (and consequently TMall ZOI). The likelihood of such effects will be avoided through the incorporation of the 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 construction, the estimated number of marine mammals to be harassed is small relative to overall population sizes.

Authorization

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

Dated: June 6, 2008.

James H. Lecky,

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

[FR Doc. E8-13264 Filed 6-11-08; 8:45 am]

BILLING CODE 3510-22-S

COMMISSION OF FINE ARTS

Notice of Meeting

The next meeting of the U.S. Commission of Fine Arts is scheduled for 19 June 2008, at 10 a.m. in the Commission's offices at the National Building Museum, Suite 312, Judiciary Square, 401 F Street, NW., Washington, DC 20001-2728. Items of discussion may include buildings, parks and memorials.

Draft agendas and additional information regarding the Commission are available on our Web site: <http://www.cfa.gov>. Inquiries regarding the agenda and requests to submit written or oral statements should be addressed to Thomas Luebke, Secretary, U.S. Commission of Fine Arts, at the above address, or call 202-504-2200. Individuals requiring sign language interpretation for the hearing impaired should contact the Secretary at least 10 days before the meeting date.

Dated in Washington DC, 22 May 2008.

Thomas Luebke,

Secretary.

[FR Doc. E8-13062 Filed 6-11-08; 8:45 am]

BILLING CODE 6330-01-M

DEPARTMENT OF DEFENSE

GENERAL SERVICES ADMINISTRATION

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[OMB Control No. 9000-0065]

Federal Acquisition Regulation; Information Collection; Overtime

AGENCIES: Department of Defense (DOD), General Services Administration (GSA), and National Aeronautics and Space Administration (NASA).

ACTION: Notice of request for public comments regarding an extension to an existing OMB clearance.

SUMMARY: Under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35), the Federal Acquisition Regulation (FAR) Secretariat will be submitting to the Office of Management and Budget (OMB) a request to review and approve

an extension of a currently approved information collection requirement concerning overtime. The clearance currently expires on August 31, 2008.

Public comments are particularly invited on: Whether this collection of information is necessary for the proper performance of functions of the FAR, and whether it will have practical utility; whether our estimate of the public burden of this collection of information is accurate, and based on valid assumptions and methodology; ways to enhance the quality, utility, and clarity of the information to be collected; and ways in which we can minimize the burden of the collection of information on those who are to respond, through the use of appropriate technological collection techniques or other forms of information technology.

DATES: Submit comments on or before August 11, 2008.

ADDRESSES: Submit comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to the General Services Administration, FAR Secretariat (VPR), 1800 F Street, NW., Room 4041, Washington, DC 20405.

FOR FURTHER INFORMATION CONTACT: Ernest Woodson, Contract Policy Division, GSA (202) 501-3775.

SUPPLEMENTARY INFORMATION:

A. Purpose

Federal solicitations normally do not specify delivery schedules that will require overtime at the Government's expense. However, when overtime is required under a contract and it exceeds the dollar ceiling established during negotiations, the contractor must request approval from the contracting officer for overtime. With the request, the contractor must provide information regarding the need for overtime.

B. Annual Reporting Burden

Respondents: 1,270.

Responses Per Respondent: 1.

Total Responses: 1,270.

Hours Per Response: .25.

Total Burden Hours: 318.

OBTAINING COPIES OF PROPOSALS: Requesters may obtain a copy of the information collection documents from the General Services Administration, FAR Secretariat (VPR), Room 4041, 1800 F Street, NW., Washington, DC 20405, telephone (202) 501-4755. Please cite OMB Control No. 9000-0065, Overtime, in all correspondence.

Dated: May 30, 2008.

Al Matera,

Director, Office of Acquisition Policy.

[FR Doc. E8-13153 Filed 6-11-08; 8:45 am]

BILLING CODE 6820-EP-S

DEPARTMENT OF DEFENSE

Office of the Secretary

Meeting of the Uniform Formulary Beneficiary Advisory Panel

AGENCY: Department of Defense, Assistant Secretary of Defense (Health Affairs).

ACTION: Notice of Meeting.

SUMMARY: Under the provisions of the Federal Advisory Committee Act of 1972 (5 U.S.C., Appendix, as amended) and the Sunshine in the Government Act of 1976 (U.S.C. 552b, as amended), the Department of Defense (DoD) announces a meeting of the Uniform Formulary Beneficiary Advisory Panel (hereafter referred to as the Panel).

DATES: July 24, 2008 (8 a.m. to 4 p.m.)

ADDRESSES: Naval Heritage Center Theater, 701 Pennsylvania Avenue NW., Washington, DC 20004.

FOR FURTHER INFORMATION CONTACT: Lt Col Thomas Bacon, Designated Federal Officer, Uniform Formulary Beneficiary Advisory Panel, Skyline 5, Suite 810, 5111 Leesburg Pike, Falls Church, Virginia 22041-3206; Telephone: (703) 681-2890; Fax: (703) 681-1940; E-mail Address: baprequests@tma.osd.mil.

SUPPLEMENTARY INFORMATION:

Purpose of Meeting: The Panel will review and comment on recommendations made to the Director, TRICARE Management Activity, by the Pharmacy and Therapeutics Committee regarding the Uniform Formulary.

Meeting Agenda: Sign-In; Welcome and Opening Remarks; Public Citizen Comments; Scheduled Therapeutic Class Reviews—Triptans, Osteoporosis Agents, and Newly approved drugs under review; Panel Discussions and Vote, and comments following each therapeutic class review.

Meeting Accessibility: Pursuant to 5 U.S.C. 552b, as amended, and 41 CFR 102-3.140 through 102-3.165, and the availability of space, this meeting is open to the public. Seating is limited and will be provided only to the first 220 people that sign in. All persons must sign in legibly.

Prior to the public meeting, the Panel will conduct an Administrative Work Meeting from 7 a.m. to 7:50 a.m. to discuss administrative matters of the Panel. The Administrative Work