

invite comments on the question of whether instruments of equivalent scientific value, for the purposes for which the instruments shown below are intended to be used, are being manufactured in the United States.

Comments must comply with 15 CFR 301.5(a)(3) and (4) of the regulations and be postmarked on or before June 4, 2007. Address written comments to Statutory Import Programs Staff, Room 2104, U.S. Department of Commerce, Washington, DC 20230. Applications may be examined between 8:30 a.m. and 5 p.m. at the U.S. Department of Commerce in Room 2104.

Docket Number: 07-023. Applicant: University of Miami, Biology Department, 1301 Memorial Drive, Room 215, Coral Gables, FL 33146. Instrument: Electron Microscope, Model JEM-1400. Manufacturer: JEOL, USA, Inc., Japan. Intended Use: The instrument is intended to be used to study the ultrastructure of defensive glandular structures in the sea hare. *Aplysia californica* is to be studied. Structures to be examined include the ink gland, opaline gland and white skin vesicles. Also, studied will be the digestive gland and gill ultrastructure. The objectives are to attempt to determine if there is a link between food sources and the structure of the various glands described above. Application accepted by Commissioner of Customs: April 18, 2007.

Docket Number: 07-024. Applicant: Shriners Hospitals for Children, 3101 S.W. Sam Jackson Park Road, Portland, OR 97239. Instrument: Transmission Electron Microscope. Manufacturer: FEI, Company, The Netherlands. Intended Use: The instrument is intended to be used to examine sections from normal and diseased tissues, particularly in connective tissue, in an effort to determine the consequence of disease. Molecules and tissues will be analyzed in two and three dimensions using electron tomography for a better understanding of their structure and relationships to neighboring tissues and molecules. The distribution of molecules in normal and diseased tissues and the dimensional structure within cells and tissues will provide a better understanding of how they react in a tissue environment with other matrix molecules. Application accepted by Commissioner of Customs: April 27, 2007.

Docket Number: 07-027. Applicant: University of Missouri-Columbia, Veterinary Medicine Building, Room W122, 1600 East Rollins, Columbia, MD 65211. Instrument: Transmission Electron Microscope, Model JEM-1400.

Manufacturer: JEOL, Japan. Intended Use: The instrument is intended to be used in a central facility by an average of 50 different groups per year including faculty, staff and students to study the ultrastructure of a wide variety of biological and material samples including animal and plant tissues, microorganisms, and geological and engineering samples. The majority of use will be for biomedical research, agricultural questions and engineering problems. Materials developed for nanomedicine, pathogenic organisms, animal models of human disease, gene therapy and new devices and processes in engineering will be highlighted by 3D tomography. Application accepted by Commissioner of Customs: April 27, 2007.

Docket Number: 07-028. Applicant: Vanderbilt University, Center for Structural Biology, 465 21st Avenue South, MRB III, Suite 5140, Nashville, TN 37232. Instrument: Transmission Electron Microscope, Model FP 5005/05. Manufacturer: FEI, Brno, Czech Republic. Intended Use: The instrument is intended to be used to study purified biological macromolecular complexes such as the spliceosome and the anaphase promoting complex, composed of protein and RNA components. The objective is to determine the three dimensional structures of large macromolecular complexes. Application accepted by Commissioner of Customs: April 27, 2007.

**Faye Robinson,**

*Director, Statutory Import Programs Staff.*

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**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

[I.D. 041307A]

**Small Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Construction and Operation of an LNG Facility Off Massachusetts**

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

**ACTION:** Notice of issuance of an incidental harassment authorization.

**SUMMARY:** In accordance with provisions of the Marine Mammal Protection Act (MMPA) as amended, notification is hereby given that an Incidental

Harassment Authorization (IHA) to take marine mammals, by harassment, incidental to construction and operation of an offshore liquefied natural gas (LNG) facility in the Massachusetts Bay, has been issued to Northeast Gateway Energy Bridge™ L.L.C. (Northeast Gateway) and Algonquin Gas Transmission, L.L.C. (Algonquin) for a period of 1 year.

**DATES:** This authorization is effective from May 8, 2007, until May 7, 2008.

**ADDRESSES:** A copy of the application, IHA, and a list of references used in this document may be obtained 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. A copy of the application may be obtained by writing to this address or by telephoning the contact listed here and is also available at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm#iha>. The Maritime Administration (MARAD) and U.S. Coast Guard (USCG) Final Environmental Impact Statement (Final EIS) on the Northeast Gateway Energy Bridge LNG Deepwater Port license application is available for viewing at <http://dms.dot.gov> under the docket number 22219.

**FOR FURTHER INFORMATION CONTACT:** Kenneth Hollingshead, Office of Protected Resources, NMFS, (301) 713-2289, ext 128.

**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 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, a notice of a proposed authorization is provided to the public for review.

An authorization shall 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 certain subsistence uses, and that the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such takings 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 established an expedited process by which citizens of the United States can apply for an authorization to incidentally take small numbers of marine mammals by harassment. Except with respect to certain 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 marine mammals. Within 45 days of the close of the comment period, NMFS must either issue or deny issuance of the authorization.

### Summary of Request

On October 30, 2006, NMFS received an application from Northeast Gateway and Algonquin for 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 and operation of an offshore LNG facility.

### Description of the Project

Northeast Gateway is proposing to construct, own, and operate the Northeast Gateway Deepwater Port (Port or Northeast Port) to import LNG into the New England region. The Port, which will be located in Massachusetts Bay, will consist of a submerged buoy system to dock specifically designed LNG carriers approximately 13 mi (21 km) offshore of Massachusetts in federal waters approximately 270 to 290 ft (82 to 88 m) in depth.

This facility will deliver regasified LNG to onshore markets via new and existing pipeline facilities owned and operated by Algonquin. Algonquin will build and operate a new, 16.06-mile (25.8 km) long, 24-in (61-cm) diameter natural gas pipeline (called the Northeast Gateway Pipeline Lateral or Pipeline Lateral) to connect the Port to Algonquin’s existing offshore natural gas pipeline system in Massachusetts Bay, called the HubLine.

The Port will consist of two subsea Submerged Turret Loading (STL™) buoys, each with a flexible riser assembly and a manifold connecting the riser assembly, via a steel flowline, to the subsea Pipeline Lateral. Northeast Gateway will utilize vessels from its current fleet of specially designed Energy-Bridge™ Regasification Vessels (EBRVs), each capable of transporting approximately 2.9 billion ft<sup>3</sup> (82 million m<sup>3</sup>) of natural gas condensed to 4.9 million ft<sup>3</sup> (138,000 m<sup>3</sup>) of LNG. Northeast Gateway will add vessels to its fleet that will have a cargo capacity of approximately 151,000 m<sup>3</sup>. The proposed mooring system to be installed at the Port is designed to handle both the existing vessels and any of the larger capacity vessels that may come into service in the future. The EBRVs will dock to the STL™ buoys which will serve as both the single-point mooring system for the vessels and the delivery conduit for natural gas. Each of the STL™ buoys will be secured to the seafloor using a series of suction anchors and a combination of chain/cable anchor lines.

The Pipeline Lateral joins the existing HubLine pipeline in waters approximately 3 mi (4.8 km) to the east of Marblehead Neck in Marblehead, Massachusetts. From the HubLine connection, the Pipeline Lateral route extends towards the northeast, crossing the outer reaches of 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 6.3 mi (10.1 km). The Pipeline Lateral route curves to the east and southeast, exiting Manchester-by-the-Sea territorial waters and entering waters regulated by the Commonwealth of Massachusetts. The Pipeline Lateral route continues to the south/southeast for approximately 6.2 mi (10 km), where it exits state waters and enters federal waters. The Pipeline Lateral route then extends to the south for another approximately 3.5 mi (5.7 km), terminating at the Port.

On June 13, 2005, Northeast Gateway submitted an application to the USCG and MARAD seeking a federal license under the Deep-Water Port Act to own, construct, and operate a deepwater port for the import and regasification of LNG in Massachusetts Bay, off of the coast of Massachusetts. Simultaneous with this filing, Algonquin filed a Natural Gas Act Section 7(c) application with the Federal Energy Regulatory Commission for a Certificate of Public Convenience and Necessity for the Pipeline Lateral that would connect the Northeast Gateway Port with the existing HubLine natural gas pipeline for transmission

throughout New England. 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 of LNG, Northeast Gateway/Algonquin have applied for a 1-year IHA for activities commencing around May, 2007.

Detailed information on these activities can be found in the MARAD/USCG Final EIS on the Northeast Gateway Project (see ADDRESSES for availability). Detailed information on the LNG facility’s pipeline and port construction, operation, and maintenance activities; and noise generated from construction and operations was published in the **Federal Register** on March 13, 2007 (72 FR 11328). 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 March 13, 2007 (72 FR 11328). During the 30-day public comment period, NMFS received the following comments from the Marine Mammal Commission (Commission), the Provincetown Center for Coastal Studies (PCCS), the PCCS Aerial Survey Team, the Whale Center of New England (WCNE), the Humane Society of the United States (HSUS), and 18 private citizens.

*Comment 1:* The Commission states that in general, the mitigation, monitoring, and reporting measures appear appropriate and prudent. The Commission recommends that NMFS condition the IHA to include all of them, including the installation of a near-real-time passive acoustic array.

*Response:* NMFS agrees with the Commission’s recommendation. The IHA requires the installation of a near-real-time passive acoustic array in the vicinity of the proposed project.

*Comment 2:* The Commission recommends that the IHA explicitly identify which construction and operation activities (e.g., operation of vessel thrusters) would be suspended when whales are detected within specified distances. The Commission states that since the operators may not know which activities produce sounds that exceed certain specified levels (i.e., 120 dB re 1 microPa), there is a need to specify which construction and operation activities would need to be suspended in the event that a right whale is detected within 457 m (500 yd) or another protected species is detected within 91 m (100 yd).

*Response:* NMFS does not agree with the Commission's recommendation of setting specified shut down criteria for each construction and operation activity for a specified received level. Due to the complexity of oceanographical and ocean bottom topographical features, as well as a wide range of construction and operation equipment being used for the proposed project, it is virtually impossible to set specified shut down criteria for each construction and operation activity. For example, the ensonified area where intermittent noise received levels reach 120 dB re 1 microPa or above from the same bow thruster use associated with dynamic positioning of vessels during either construction or operation (docking) could range between 15 km<sup>2</sup> (5.8 mi<sup>2</sup>) and 34 km<sup>2</sup> (13.1 mi<sup>2</sup>), or 2.18 km (1.35 mi) and 3.31 km (2.06 mi) radii, respectively, depending on water depth between 120 m (394 ft) or deeper and 40 m (131 ft) or shallower.

Nonetheless, the Northeast Gateway proposed to adopt the most conservative estimates of "take" by using the largest zone of influence (ZOI; 34 km<sup>2</sup>, or 13.1 mi<sup>2</sup>) for 120 dB re 1 microPa in shallow water (40 m, or 131 ft) in their calculation, regardless of the type of construction and operation activities. The type of construction activity that would produce the highest noise level would be from the construction vessel movements, with source levels reaching up to 180 dBL re 1 microPa at 1 m for vessel thrusters used for dynamic positioning. In addition, as detailed in the **Federal Register** notice (72 FR 11328, March 13, 2007), during construction and operations, a 0.8 km (0.5 mi) radius zone will be monitored by marine mammal observers (MMOs). If any marine mammals are visually detected within the 0.8 km (0.5 mi) radius zone, the vessel supervisor would be notified immediately. The vessel's crew would be put on a heightened state of alert. The marine mammal would be monitored constantly to determine if it is moving toward the construction or operation area. Construction or operational vessel(s) in the vicinity would be directed to cease any movement and/or stop noise emitting activities that exceed a received level of 120 dB re 1 microPa at 100 yd (91 m) (approximately 139 dB re 1 microPa at the source) if a marine mammal other than a right whale comes to within such a range. For right whales, the cut-off distance would be established at 500 yd (457 m) when the received level reaches 120 dB re 1 microPa at 100 yd (91). NMFS considers this measure conservative.

*Comment 3:* The Commission, the PCCS, and the HSUS note that construction and operation activities producing loud noise would occur at night and under poor sighting conditions (e.g., foggy weather) when visual detection of animals would not be possible. The Commission recommends that NMFS require the use of passive acoustic monitoring (PAM) at all times during the construction period and develop criteria and procedures for suspending and resuming activities that generate sounds above specified levels when protected species are detected near the construction site. The HSUS recommends that during low-light hours, Northeast Gateway should cease all construction activities until adequate sighting conditions prevail.

*Response:* NMFS agrees with the Commission that PAM will 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 *Marine Mammal Detection, Monitoring, and Response Plan for the Construction and Operation of the Northeast Gateway Energy Bridge™ Deepwater Port and Pipeline Lateral* (NEG, 2007). The PAM primarily serves as an early warning and supplemental measure for marine mammal visual monitoring provided by two MMOs on each construction vessel. The Northeast Gateway will equip MMOs with night vision devices for marine mammal monitoring during low-light hours.

*Comment 4:* The Commission and the HSUS note that the **Federal Register** notice (72 FR 11328, March 13, 2007) identifies several measures intended to mitigate collision risks, including commitments by the port operator to require that vessels using the port:

- use the Boston Traffic Separation Scheme (TSS);
- travel at 10 knots or slower when outside those lanes approaching or leaving the port;
- travel at 10 to 12 knots when in the vicinity of the port; and
- reduce their transit speeds to 10 to 14 knots between March 1 and April 30, or if required by NMFS, throughout the entire year in the proposed Race Point ship strike management area.

The Commission and the HSUS request NMFS to describe specifically what is "in the vicinity of the port," and provide an explanation as to why speeds of up to 12 knots would be allowed under this condition when, appropriately, the speeds of vessels approaching from or departing for the traffic lanes would be limited to 10 knots. In addition, the Commission and the HSUS believe that 14 knots is too

fast and requests NMFS to set an upper speed limit. The Commission and the HSUS are concerned that a high proportion of vessel strikes causing serious or lethal injuries to whales occurred at 14 knots, as supported by ship collision data compiled by the Commission and NMFS. The Commission recommends that, consistent with navigational safety, 10 knots be required as a maximum speed for all vessels at all times of year within the Stellwagen Bank National Marine Sanctuary (SBNMS), and between March 1 and April 30 outside the SBNMS but still within the Race Point ship strike management area. The HSUS recommends that NMFS impose a speed limit of 10 knots to be consistent with what NMFS currently advises on its notices to mariners on the Ship Advisory System (SAS) in the Northeast.

*Response:* NMFS agrees with the Commission's comments and requires in the IHA a maximum speed of 10 knots for all vessels at all times of year within the SBNMS, and between March 1 and April 30 outside the SBNMS but still within the Race Point ship strike management area. To be consistent with NMFS Biological Opinion, the IHA requires that for construction activities, all construction vessels 300 gross tons or greater maintain a speed of 10 knots or less, and vessels transiting through the Cape Cod Canal and Cape Cod Bay between January 1 and May 15 reduce speed to 10 knots or less, follow the recommended routes charted by NOAA to reduce interactions between right whales and shipping traffic and avoid identified aggregations of right whales in the eastern portion of Cape Cod Bay.

In response to active right whale sightings (detected acoustically or reported through other means such as the MSR (Mandatory Ship Reporting) or SAS), and taking into account safety and weather conditions, EBRVs will take appropriate actions to minimize the risk of striking whales, including reducing speed to 10 knots or less and alerting personnel responsible for navigation and lookout duties to concentrate their efforts.

For operational activities, IHA requires that the Energy Bridge Regasification Vessels (EBRVs) maintain speeds of 12 knots or less while in the Boston TSS until reaching the vicinity of the buoys (except during the seasons and areas defined below, when speed will be limited to 10 knots or less). At 3 km (1.86 mi) from the Northeast Gateway Port, speed will be reduced to 3 knots, and to less than 1 knot at 500 m (1,640 ft) from the Port.

EBRVs will reduce transit speed to 10 knots or less (unless hydrographic, meteorological, or traffic conditions dictate an alternative speed to maintain the safety or maneuverability of the vessel) from March 1 - April 30 in all waters Off Race Point Seasonal Management Area (SMA). Please refer to the Monitoring, Mitigation, and Reporting section below for a detailed description.

*Comment 5:* The Commission recommends that vessels of less than 300 gross tons carrying supplies or crew between the shore and the construction site contact the appropriate authority before leaving shore or the construction site for reports of recent right whale sightings and, consistent with navigational safety, restrict speeds to 10 knots or less within five miles of any recent sighting locations. The Commission states that vessels smaller than 300 gross tons pose a risk of ship strikes to right whales and other large cetaceans.

*Response:* NMFS agrees with the Commission recommendation that vessels of less than 300 gross tons carrying supplies or crew between the shore and the construction site contact the appropriate authority before leaving shore or the construction site for reports of recent right whale sightings and, consistent with navigational safety, restrict speeds to 10 knots or less within five miles of any recent sighting locations. NMFS has adopted this recommendation and made it a requirement in the IHA issued to the Northeast Gateway.

*Comment 6:* The HSUS points out that in the **Federal Register** notice (72 FR 11328, March 13, 2007), it states that "Northeast Gateway has voluntarily agreed to follow any speed restrictions that may become mandatory for all vessel traffic." The HSUS requests NMFS to clarify the statement.

*Response:* The Northeast Gateway voluntarily agreed to keep its EBGVs maximum speed at 12 knots within the Boston TSS (except during specified seasons and areas when speed will be limited to 10 knots or less, please refer to Monitoring, Mitigation, and Reporting section below for a detailed description), which is not a mandatory maximum speed for all vessel traffic.

*Comment 7:* The HSUS requests that the applicant be required to halt activities in the event of the death or serious injury of an endangered species (e.g., right, fin or humpback whale) in or around the project area.

*Response:* NMFS agrees with the HSUS' comment. The applicant is required to suspend all activities 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 activity.

*Comment 8:* The WCNE, the PCCS, and the HSUS point out that the numbers of marine mammals that would be harassed incidentally from May through November were grossly underestimated by NMFS in the **Federal Register** notice (72 FR 11328, March 13, 2007). The WCNE states that the use of large whale survey data provided by the PCCS in Cape Cod Bay to extrapolate the number of animals that would be exposed to sound levels of over 120 dB re 1 microPa is flawed. The WCNE, the PCCS, the PCCS Aerial Survey Team, and the HSUS state that the PCCS surveys were conducted to assess the use of the Cape Cod Bay habitat for North Atlantic right whales, however, other species such as humpback, fin, and minke whales which are likely to occur in the proposed project area are seasonal migrants known to spend most of the survey months outside of the study area. The PCCS and the HSUS point out that the applicant should use better data, such as data published from a recent NOAA report (NCCOS, 2006), research conducted by Weinrich and Sardi (2005), and even non-systematic cetacean data, such as long-term photo-identification data sets held by PCCS.

*Response:* NMFS recognizes that baleen whale species other than North Atlantic right whales have been sighted in the proposed project area from May to November. However, the occurrence and abundance of fin (*Balaenoptera physalus*), humpback (*Megaptera novaeangliae*), and minke (*B. acutorostrata*) is not well documented within the project area. Nonetheless, NMFS agrees with the PCCS that better data on cetacean distribution within Massachusetts Bay, such as those published by the National Centers for Coastal Ocean Science (NCCOS, 2006) should be used to estimate takes of marine mammals in the vicinity of project area. Based on the revised calculation, the updated estimated annual take numbers for North Atlantic right, fin, humpback, minke, and pilot whales, and Atlantic white-sided dolphins are 3, 13, 24, 2, 15, and 49, respectively. Please refer to the Estimate Takes by Harassment section below for a detailed description on the calculation of these numbers.

NMFS also reviewed Weinrich and Sardi's (2005) report on baleen whale distribution in the proposed project area. While NMFS considers it an excellent report in describing large whale distribution in the Massachusetts Bay and the SBNMS, with sighting data

covering 1995 to 2004, NMFS could not use it to come up with take estimates because it did not provide density estimate in a quantitative analysis, which would be based on survey efforts, trackline, and strip width. Many of the non-systematic cetacean survey data, such as long-term photo-identification data sets held by the PCCS, are included in the NCCOS report.

*Comment 9:* 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. 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.

*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 is calculated to be 34 km<sup>2</sup> (13 mi<sup>2</sup>) with a vessel's dynamic positioning thrusters being operated in waters less than 40 m (131 ft) deep. As indicated in the Northeast Gateway's application, even this maximum ZOI would occur outside the SBNMS boundary, and there would be at least 5 nm (9.3 km) from the outer boundary of the maximum ZOI to the edge of Stellwagen Bank, where humpback whales and other large whale species are likely to occur (NCCOS, 2006). In addition, between the proposed project and the Stellwagen Bank, there is a deep drop off from the 50-m isobath where construction noise would not propagate as far when compared to areas of water depth less than 40 m (131 ft), where the maximum ZOI could occur. Therefore, the identification of 250 individual humpback whales in the northern Stellwagen Bank does not mean that those whales in that vicinity 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 SBNMS.

*Comment 10:* 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 500 individuals each of humpback, fin, and minke whales, each of which may be taken multiple times on multiple days (no calculation provided).

*Response:* NMFS does not believe the WCNE's estimated take numbers are scientifically supported, especially given that 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 actually published in the Fishery Bulletin in 1990, not 1989 as cited by the WCNE. 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 902 whales (Warring *et al.*, 2005). The WCNE's estimated annual take of 500 humpback whales (55 percent of the population) within an maximum 120 dB re 1 microPa ZOI of 34 km<sup>2</sup> (13 mi<sup>2</sup>) outside their normal habitat is not scientifically supportable. Likewise, the WCNE's estimated annual take numbers of 500 fin whales, which accounts for 18 percent of the Western North Atlantic population of 2,814 whales; and 500 minke whales, which is 14 percent of the Canadian East Coast population of 3,618 whales (which are most sighted off Nova Scotia and New Brunswick, Canada); are not good estimates.

*Comment 11:* The WCNE points out that right whales are not evenly distributed along a trackline, but clump in areas where a prey resource, usually copepods, is aggregated in high densities (Mayo and Marx, 1990; Baumgartner *et al.*, 2003), and citing its work on right whales, the WCNE states that the right whale use of the proposed project area may be similar to that of Cape Cod Bay where up to 100 individual whales are seen per year (Hamilton and Mayo, 1990; Brown *et al.*, 2004; Mayo *et al.*, 2005; Jaquet *et al.*, 2006). Hence, the WCNE states that an

appropriate estimate of North Atlantic right whales to be harassed by the proposed project would be approximately 100 individuals annually, each of which may be taken multiple times on multiple days.

*Response:* NMFS agrees that right whales clump in areas where prey species are most abundant. However, a good survey design would compensate for such a bias by adequate and repeated sampling of the study area. This is certainly the case for datasets 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. These studies clearly show that right whales spend most of their time across the southern Gulf of Maine in Cape Cod Bay 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 references the WCNE cited focused most of the survey efforts in Cape Cod Bay, which is 30 - 40 mi (48 - 64 km) southeast of the proposed project area and has different oceanographic features and ecological characteristics, and a more important habitat for right whales. In addition, Weinrich and Sardi (2005) in their report on the distribution of baleen whales in the Northeast Gateway proposed LNG project area states:

North Atlantic right whales are sporadic visitors to the study area [Northeast Gateway project area] during the April to November period. Right whales typically aggregate in Cape Cod Bay 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).

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. Therefore, NMFS does not believe that the WCNE's estimated annual take of 100 North Atlantic right whales by the proposed project is scientifically supported, especially given that the WCNE did not provide the calculation regarding how this take number was assessed.

*Comment 12:* The WCNE states that although it has no way of addressing the numbers of other species [marine mammal species other than large whales] requested to be taken by harassment, in most cases the numbers requested seem to be unrealistic to the WCNE (no references provided).

*Response:* Given that the WCNE has no way of addressing the numbers of other species requested, the WCNE's opinion that the numbers are unrealistic has no scientific basis.

*Comment 13:* The WCNE points out that the deepwater port installation during the months of August through November is a particularly sensitive time for endangered humpback and fin whales within the proposed project area, as supported by the studies conducted by Weinrich and Sardi (2005). 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.

*Response:* While NMFS reviewed the Weinrich and Sardi (2005) report on the distribution of baleen whales in the waters surrounding the Northeast Gateway's proposed LNG project, NMFS did not find the report contains 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 the Massachusetts Bay, the west terminal portion of the Boston 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 would be potential take of a small number 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 months of August and November for humpback and fin whales as strict monitoring and mitigation measures, described in the Monitoring, Mitigation, and Reporting section, would be implemented to keep the impact levels as low as practicable.

*Comment 14:* The WCNE points out that the permit application never refers to any of the project's vessel operations except that of the thrusters. The WCNE states that staff at the SBNMS have shown that LNG tankers under operation produce acoustic sources that can radiate well over 0.25 mi (400 m) from the ship (no reference provided). The WCNE further points out that many

of the ships are large, relatively un-maneuverable vessels that would not be able to maintain legal approach distances, including the 500-yd minimum approach distance to right whales.

*Response:* Staff at the SBNMS has not had the opportunity to do acoustic testing of the EBRVs that will be using the Port. However, acoustic testing of the EBRVs has been conducted and was referenced in the proposed project as published in the **Federal Register** (72 FR 11328, March 13, 2007). While "acoustic sources" may "radiate," at 0.25 mi (400 m) the received level would be below 120 dB re 1 microPa, which is the threshold for Level B behavioral harassment for marine mammals.

The Northeast Gateway states that the maneuverability of the EBRVs at this low speed (maximum 12 knots within the Boston TSS and maximum 10 knots within the SBNMS, please refer to Monitoring, Mitigation, and Reporting section below for a detailed description) would enable the vessels to maintain legal approach distance, including the 500-yd (457-m) minimum approach distance to right whales.

*Comment 15:* The WCNE points out that the applicant plans to use a remote acoustic detection system for whale monitoring. However, the WCNE states, that PAM can only be effective if a whale vocalizes while it is within detectable range of the array. Citing Park *et al.* (2006, unpublished data), the WCNE states that whales are often silent for prolonged periods in the WCNE's study area. The PCCS also points out that marine mammals may not vocalize continuously and work is still underway to estimate the probability of detecting a whale that is present by passive acoustic techniques.

*Response:* NMFS acknowledges these limitations. The requirement of PAM for marine mammal detection is intended to provide additional monitoring to the standard visual monitoring by qualified marine mammal observers (MMOs). PAM is not to be solely used for marine mammal monitoring and detection for the proposed project and certainly will not replace visual monitoring. However, passive acoustic buoys provide an early warning to contractor managers and vessel operators when a vocalizing whale is detected within 3 - 5 mi (4.8 - 8.0 km) from the project, which triggers the MMOs to heighten visual observation in the direction of a vocalizing whale (NEG, 2007).

While NMFS agrees that at times whales do not vocalize continuously, nonetheless, acoustic detection has been demonstrated to augment visual

detection of marine mammal in population estimates and habitat selection indices in a number of studies (e.g., Moore *et al.*, 1999; Swartz *et al.*, 2002).

*Comment 16:* The PCCS is concerned that PAM would be entirely ineffective for monitoring marine turtles which also are least likely to be detected by visual techniques.

*Response:* NMFS agrees with the PCCS' comment that PAM is not an effective way to monitor marine turtles. As stated in the **Federal Register** notice (72 FR 11328, March 13, 2007), the PAM would be used as a supplemental monitoring measure for detecting marine mammals.

*Comment 17:* The WCNE and the PCCS Aerial Survey Team are concerned that vessel strikes have not been identified as a potential type of take, and that the applicants have made no commitments to take any actions to avoid disturbance or collision even though they know a whale is present in their path or in the disturbance "swath."

*Response:* NMFS does not agree with the WCNE and PCCS' comment. In assessing the potential impact from vessel strikes, NMFS proposed strict vessel speed limits in the vicinity of the project area, including within the SBNMS, the Boston TSS, and right whale seasonal management areas.

The IHA issued to the Northeast Gateway provides detailed monitoring and mitigation measures to avoid any disturbance or collision, including passive acoustic monitoring, reducing vessel speed to 12 knots within the Boston TSS, and further reducing vessel speed to 10 knots within the SBNMS and within seasonal management areas during certain months. These mandatory monitoring and mitigation measures are detailed in the Monitoring, Mitigation, and Reporting section of this document.

*Comment 18:* The WCNE states that whales would be harassed not just by exposure to sound sources of over 120 dB re 1 microPa, they may also be disturbed by multiple boats in a limited area. The WCNE cites that 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 recommends 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.

*Response:* It is true that marine mammals maybe 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 operation of a deepwater LNG facility would only increase vessel traffic 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.

The IHA is issued for a duration of one 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 IHAs.

*Comment 19:* The WCNE states that the range over which individual marine mammals would be considered harassed by exposure to vessel noise of over 120 dB re 1 microPa is also underestimated in the permit application. The WCNE points out that the Northeast Gateway FEIS provides relatively little concrete data on how far the sounds of various project activities are likely to propagate, except for a small number of studies conducted on stationary vessels in the Gulf of Mexico (GOM). The WCNE points out that the differences in the acoustic properties between the GOM and the Massachusetts Bay project site are so great that data from the former are of little relevance (no reference provided). Citing the Neptune LNG project, the WCNE states that the area around the ship that would reach areas of 120 dB re 1 microPa would be within approximately 1 nm in any direction when it is transiting at 10 knots at

depths of both 50 m and at the bottom (less at the surface, where the sound is masked by the Lloyd mirror effect), and to approximately 3 nm in any direction when thrusters are used.

*Response:* NMFS does not agree with the WCNE comment. The propagation of sound underwater follows basic geometric spreading models that are generally predictable (Urlick, 1983). Therefore, studies on acoustic energy propagation conducted in the GOM are directly relevant to operations of identical vessels in the Massachusetts Bay unless substantial data are provided that would indicate otherwise. Regarding the size of the 120 dB re 1 microPa isopleth cited by the WCNE for the Neptune LNG project, there are a number of reasons why the isopleth areas differ from the one for this project. One reason is that the source level may be higher.

*Comment 20:* The WCNE points out that there is no mention in the applicant's application about harassment from blasting during the construction phase of the project, however, the proponents continue to include in many of their documents the possibility that it may occur. The WCNE states that baleen whales, including those species in the project area, have been shown to be very sensitive to blasting; in some cases, it has been known to be fatal to humpback whales (Todd *et al.*, 1996).

*Response:* Northeast Gateway stated that the pipeline route was intensively studied, and those studies were submitted to the USCG/MARAD and made part of their application. When the shortest, least expensive pipeline route was studied and it became clear that it would cross rocky substrate, another route, longer and more expensive was designated, selected in large part because it entirely avoids rocky substrate and the need for blasting or extensive alteration of the substrate. Northeast Gateway stated in its IHA application that no blasting would be required for the construction of the LNG deepwater port. Therefore, the IHA does not authorize blasting to be used for port construction. If, during the course of the construction, an unexpected need for blasting arises, the blasting cannot take place until a blasting plan is submission to the Federal Energy Regulatory Commission (FERC) and a Blasting Mitigation Plan prepared in consultation with NOAA for submittal to, and approval by, the FERC, which would certainly include a reconsideration of an amendment of the IHA.

*Comment 21:* The WCNE states that unless otherwise specifically granted an

authorization by the NMFS permit office, Northeast Gateway must also move away from a right whale until they have once again established the 500 yd buffer. The application does not contain a request for an authorization to approach right whales within 500 yd. This contradicts their statement that, regarding the DSV (which maintains its position with thrusters, and is therefore well above 120 dB re 1 microPa to several miles) "the importance of maintaining the position of the vessel is a demand which cannot be compromised" (in other words, regardless of where any marine mammal appears).

*Response:* The mitigation measures for approach regulate the approach distance of a vessel to a marine mammal. They do not apply to stationary vessels. The construction vessels in question include anchored construction barges and Diver Support Vessels (DSV).

The DSV uses dynamic positioning to hold position over one or more divers deployed on the bottom with lifelines into the vessel. It is, for all intents and purposes, stationary at the time. It is extremely unlikely that a marine mammal would approach such a noise source and swim within the specified "harassment" distance of the vessel. However, if that occurred, the vessel would not be able to abandon its position; if the vessel did so, the safety and even the survival of the divers below would be in jeopardy. This is made clear in the proposed IHA **Federal Register** notice (72 FR 11328, March 13, 2007). Since the maximum noise level produced by deploying the dynamic positioning thrusters is under 180 dB re microPa, which is below the sound level that may cause permanent or temporary hearing threshold shift, NMFS does not believe that any Level A harassment (including injury) or mortality would occur to any marine mammals in the project vicinity.

*Comment 22:* The PCCS questions the 500-yd rule to determine when activities might become disruptive for right whales, and 100-yd rule for other marine mammals. The 500-yd rule for right whales was not formulated to prevent disruption from construction activities and it is unclear what the 100-yd threshold is based on. Both distances appear to be smaller than the anticipated ZOI for 120 dB re 1 microPa sound. The smallest anticipated ZOI radius according to the application is 2.18-km or 2,384-yd, far greater than both sighting distance thresholds. Finally, it is not clear why 120 dB re 1 microPa activities should cease at

different distances for right whales compared to other species.

*Response:* Those distances are based on applicant's proposed action as described in their IHA application, as well as the EIS and Biological Opinion. Given the status of right whales, it is appropriate to have a more conservative shut-down zone for right whales.

The 2.18-km (2,384-yd) 120-dB isopleth is based on the conservative calculation using the high-intensity source level of 180 dB from the dynamic positioning thrusters. These levels of high-intensity sounds are rarely emitted, therefore, the chance of a marine mammal being exposed to received levels above 120 dB outside the 100-yd safety zone (500-yd safety zone for a right whale) is very low.

Please also note that the MMOs are able to monitor a much larger area (0.8 km, or 0.5 mi, radius) in any direction from the construction site, which is way beyond 500-yard limit. In the Arctic, mammal observers routinely report whales at 1 to 3 mi (1.6 to 4.8 km) distance from the ship from observation platforms that are 12 to 15 m (40 to 50 ft) above the surface of the sea, as would be the case for the DSVs or the construction barges.

*Comment 23:* The PCCS Aerial Survey Team points out that there may be other species found in the Massachusetts Bay in addition to those observed in Cape Cod Bay by the PCCS. Therefore, more marine mammal studies should be conducted in the Massachusetts Bay.

*Response:* NMFS agrees with the PCCS there may be other species of marine mammals present in the Massachusetts Bay that were not included in the estimated take, such as sei whales (*B. borealis*). However, these species are rarely sighted in the vicinity of the project area. Therefore, NMFS considers it unlikely that there would be a take of sei whales as a result of the proposed activity. NMFS agrees with the PCCS that more marine mammal studies should be conducted in the Massachusetts Bay. However, this is irrelevant to the issuance of this IHA since NMFS already has the necessary information to assess the level of potential impacts on marine mammals in the project area and to make the determination on the issuance of the IHA.

*Comment 24:* The PCCS Aerial Survey Team states that their PCCS line transect data area specifically designed to maximize right whale sightings, and other marine mammals are recorded secondarily. The PCCS points out that different survey methods are appropriate for different species and that density estimates for small

cetaceans in particular are largely influenced by sea state (Palka, 1996). The PCCS further points out that in calculating the estimated take of marine mammals, Northeast Gateway used 1.5 km as strip width, in fact, the strip width should be 1.5 nm, and that the 1.5-km strip width would not be appropriate for many of the smaller marine mammals (for example, a strip width of a few hundred meters would be more appropriate for harbor porpoises).

*Response:* NMFS recalculated the cetacean density data and estimated take number based on the compilation of a large number of databases published by the NCCOS (2006). Please refer to Estimated Take by Harassment section below for a detailed description. In their density estimate, the NCCOS eliminated all survey data collected for small marine mammals when sea state is 3 or above.

In making its final determination, NMFS revised its calculation for estimated take of marine mammals due to the proposed project, and a more conservative hypothetical "strip width" of 0.4 km (0.25 mi) was used to calculate the estimated take number from the NCCOS report. Please refer to Estimated Take by Harassment section below for a detailed analysis of the calculation.

*Comment 25:* The PCCS Aerial Survey Team points out that a correction factor of 30 percent in calculating marine mammal take numbers cannot be applied to all species.

*Response:* While the length of the dive varies widely among marine mammal species, correction factors have not been developed for all species. Nonetheless, NMFS has used a more conservative 50 percent correction factor to compensate for marine mammals that were underwater and thus not sighted. Therefore, NMFS believes that this correction factor, while general, provides a conservative estimate of possible take.

*Comment 26:* The PCCS Aerial Survey Team points out that human error (often known as perception error) should also be factored into the equation, but has not been included in calculations by the applicant.

*Response:* Since such a factor has not been calculated in any datasets the NCCOS used for its density estimate, there is no way of knowing whether a meaningful correcting factor for perception error exists, and if so, the magnitude of the factor. Nonetheless, in selecting data for cetacean density estimate, only records from dedicated aerial and platform-of-opportunity surveys that met certain selection

criteria were used by the NCCOS in their calculation. Please refer to the NCCOS (2006) report for a detailed description.

*Comment 27:* The PCCS Aerial Survey Team points out that any harassment contributing to the stress of a right whale could potentially affect this vulnerable population.

*Response:* NMFS agrees with the PCCS Aerial Survey Team's assessment. NMFS endangered species scientists in the Northeast Region have conducted a thorough review of the best available information on the status of endangered and threatened species under NMFS jurisdiction, the environmental baseline for the action area, the effects of the proposed project and cumulative effects in the action area. A Biological Opinion on the proposed action was published on February 5, 2007 (NMFS, 2007), which stated that the construction and operation of the Northeast Gateway LNG deepwater port is likely to adversely affect, but is not likely to jeopardize the continued existence of Northern right whales.

In addition, NMFS has reviewed and adopted the FEIS prepared by the USCG and the MARAD, and has made its determination that the issuance of the IHA to the Northeast Gateway for taking up to 3 North Atlantic right whales by Level B harassment incidental to an LNG deepwater construction would have a negligible impact on the species.

*Comment 28:* The Commission assumes that NMFS chose 120-dB re 1 microPa source level, rather than the received level, as a cut-off threshold to avoid the need for a small-take authorization, and that the source level was used rather than the received level simply to avoid uncertainty pertaining to estimation of the received level. The Commission requests a clarification if its assumption is incorrect.

*Response:* The Northeast Gateway in its *Marine Mammal and Turtle Monitoring and Mitigation Plan of the IHA application (Appendix C)* stated:

Construction vessel(s) in the vicinity of the sighting will be directed to cease any movement and/or stop noise emitting activities that exceed 120 decibels (dB) in the event that a right whale comes to within 500 yards of any operating construction vessel. For other whales and sea turtles this distance will be established at 100 yards. Vessels transiting the construction area such as pipe haul barge tugs will also be required to maintain these separation distances.

This proposed mitigation measure was later published in the **Federal Register** notice (72 FR 11328, March 13, 2007). However, after consulting experts on ocean acoustics, NMFS realized that setting the 120 dB source level as a cut-off is unrealistic and untenable.

Given the fact that almost anything occurring on a vessel or barge would have to be stopped—including generators for basis functions, flushing toilets, and tug boats in neutral, etc.—if 120 dB source level was set as a cut-off threshold, NMFS has amended the cut-off threshold to be 120 dB re 1 microPa *received* level at 100 yd (91 m) for all marine mammals except right whales when they approach to this distance. The cut-off threshold for right whales would also be 120 dB re 1 microPa at 100 yd (91 m), however, the source shut-down distance would be 500 yd (457 m) from the source. The back calculated cut-off source level based on the most conservative model for underwater acoustic propagation (i.e., cylindrical spreading in shallow water) is 139 dB re 1 microPa. Please see Monitoring, Mitigation, and Reporting section below for a detailed description.

*Comment 29:* Fourteen private citizens request a public hearing to consider the IHA application submitted by the Northeast Gateway to take marine mammals off the Massachusetts coastline. These citizens also state that the dangers to marine mammals are grossly understated and misrepresented in the permit application.

*Response:* In view of the number of public meetings and hearings held by the USCG and others on this matter and the expedited statutory timeline for issuing this IHA, NMFS does not believe that a public hearing is warranted.

A thorough analysis of the potential impact to marine mammals as a result of the proposed project is presented in the **Federal Register** notice (72 FR 11328) published on March 13, 2007, and in the NMFS Biological Opinion on this action, the USCG and MARAD Final EIS, as well as in this document. Please refer to these documents for the issue.

*Comment 30:* Fourteen private citizens point out that the proposed LNG terminal would be almost on top of an old toxic, chemical, and radioactive dump site that is surrounded by three marine sanctuaries, including the SBNMS, the South Essex Ocean Sanctuary, and the North Shore Ocean Sanctuary. These citizens also expressed concerns that LNG tankers would constantly scour the bottom, dredging up and breaking up many of the thousands of waste drums documented to have been dumped in the vicinity that would pollute the ocean ecosystem, endanger 6 species of ESA-listed whales and 4 species of ESA-listed sea turtles, contaminate fish and lobsters, and threaten the livelihood and safety of fishermen who may pull



up toxic materials in their nets and traps.

*Response:* Algonquin has used the coordinates listed in the permits authorizing the dumping of radioactive waste to map the locations of the dump areas. The project does not involve any work in the radioactive dump locations, and therefore there will be no sediment/bottom disturbing activities resulting from the project construction or operation that would necessitate the need to clean up the wastes. One dump location is located about 6 mi (9.7 km) almost due east of Scituate and approximately 8 mi (12.9) south of the Northeast Gateway deepwater port. The second dump site is located just east of the eastern edge of the pipeline anchor corridor, approximately between Mileposts 14 and 15. While this area is more proximate to the proposed project area, geophysical surveys were performed, using sidescan sonar, subbottom profiling and magnetometer methodologies. These survey methodologies have a high probability of identifying items such as 30- or 50-gallon (113.6- or 189.3-l) steel drums, either because they create a surface image on the sidescan sonar, such as a 3- or 4-ft (0.9- or 1.2-m) diameter rock might, or because the magnetometer registers the presence of ferrous metal objects, potentially as small as a cannonball, and even if encased in concrete. Benthic community and sediment characterization surveys were also conducted using grab samplers; therefore results reflect the near-surface conditions. Benthic samples were collected throughout the area that was examined during the siting process, while sediment collections were made only in the areas finally selected for the buoys and flowlines. Because of the historical reports of radioactive wastes being disposed in eastern Massachusetts Bay, field technicians tested each benthic and sediment sample from that area with a Geiger counter. No "hot" samples were found. Sediment samples were tested for the chemical contaminants required for assessing dredged material proposed for disposal at the Massachusetts Bay Disposal Site (MBDS). All constituents tested fell within the Category 1 ("cleanest") criteria, considered acceptable for disposal at the MBDS.

In addition, this is an area of intense ground fishing activity, and it is possible that disposed drums of radioactive waste that were short dumped would have already been struck by groundfishing gear, would have been picked up in groundfishing gear, or are adequately buried, such that the anchor cables will not disturb them.

*Comment 31:* Five private citizens point out that when Algonquin built the Hubline it ignored its permit and the Order of Conditions set by the Nahant Conservation Commission not to build during lobster migration seasons. These citizens are concerned that, given this history, Algonquin may not suspend construction activities when whales are in the vicinity.

*Response:* Algonquin states that during the construction of the HubLine Pipeline, the company worked closely with Federal, state and local regulatory agencies to ensure that the intent of the permit conditions were complied with. Weekly construction status reports were prepared and submitted to agency personnel. Algonquin states that the HubLine Project was complex and construction during the winter posed some significant unforeseen challenges. Throughout the construction phase, Algonquin states that it worked closely with agency personnel at the Federal and state level to overcome these challenges. Algonquin further states that it takes very seriously environmental compliance at all levels and will continue to do so during the construction of the Pipeline Lateral.

*Comment 32:* One private citizen states that it would be unreasonable to expect construction crews to halt construction during whale sighting and stop what amounts to noise pollution emitted at a dangerous level to whales. This citizen further states that it is irresponsible to endanger the whales, turtles, fish and lobster in this area, and that it is unacceptable to disrupt a sanctuary.

*Response:* The IHA issued to the Northeast Gateway and Algonquin, under section 101(a)(5)(D) of the MMPA, to take marine mammals by Level B harassment incidental to the construction and operation of an LNG facility in the Massachusetts Bay provides mitigation and monitoring requirements that will protect these animals from any injury or mortality. The IHA holders are required to comply with the IHA's requirements.

The proposed project would occur outside the SBNMS, and a thorough analysis has been conducted based on the best available information on the status of endangered and threatened species under NMFS jurisdiction, the environmental baseline for the action area, the effects of the proposed project and cumulative effects in the action area. These reviews have led NMFS to conclude that the proposed LNG project would have a negligible impact on the affected species or stocks of marine mammals and is not likely to jeopardize the continued existence of any

ESA-listed species. Please refer to the **Federal Register** notice (72 FR 11328) published on March 13, 2007, NMFS Biological Opinion on Northeast Gateway's action, the USCG and MARAD Final EIS, as well as this document for additional information. The analyses of the potential impacts on the environment and other marine species can be found in the Final EIS prepared by the USCG and MARAD.

*Comment 33:* One private citizen states it makes more sense to back hydrogen production from purified water with a system like the Hopewell Project in New Jersey. This citizen asks NMFS to take a look into the Hopewell Project and help America become energy independent.

*Response:* Comment noted. However, this request is irrelevant to this action.

#### **Marine Mammals Affected by the Activity**

Marine mammal species that potentially occur within the NE Gateway facility impact area include several species of cetaceans and pinnipeds: Atlantic white-sided dolphin, bottlenose dolphin, short-beaked common dolphin, harbor porpoise, killer whale, long-finned pilot whale, Risso's dolphin, striped dolphin, white-beaked dolphin, sperm whale, minke whale, blue whale, humpback whale, North Atlantic right whale, sei whale, gray seal, harbor seal, hooded seal, and harp seal. Information on those species that may be impacted by this activity are discussed in detail in the USCG Final EIS on the Northeast Gateway 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 Wursig *et al.* (2000) and in the NMFS Stock Assessment Reports (Waring, 2006). This latter document is available at: <http://www.nefsc.noaa.gov/nefsc/publications/tm/tm194/>. An updated summary on several cetacean species distribution and abundance in the proposed 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, or 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, or 328 - 656 ft) between Platts Bank and Jeffreys Ledge, the steep slopes (between the 30- and 160-m 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, or 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 the 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 656-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 the SBNMS in all seasons, with highest abundance estimated for the shallow waters (approximately 40 m, or 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 are generally distributed widely across the southern Gulf of Maine in spring with highest abundance located over the deeper waters (100- to 160-m, 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 Cape Cod Bay, 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, Cape Cod Bay, Scantum 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 arrive 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, or <197 ft, depth). Similarly, fall distributions were also primarily along the slopes of northern Georges Bank, but with high-use areas also occurring amongst 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. Cape Cod Bay 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 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 exist 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 is 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 porpoise. 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.

### Potential Effects on Marine Mammals

The effects of noise on marine mammals are highly variable, and can be categorized as follows (based on Richardson *et al.*, 1995): (1) The noise 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 noise may be audible but not strong enough to elicit any overt behavioral response; (3) The noise 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 noise event 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 noise 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 noise, it is possible that there could be noise-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 tissues associated with organs vital for hearing, sound production, respiration and other functions. This trauma may include minor to severe hemorrhage.

Northeast Gateway states that the potential impacts to marine mammals associated with sound propagation from vessel movements, pipe laying and installation of the Port, anchors, chains and PLEMs could be the temporary and short-term displacement of seals and whales from within the 120-dB zones ensonified by these noise sources. From the most precautionarily conservative estimates of both marine mammal densities in the Project area and the size of the 120-dB zone of (noise) influence (ZOI), the calculated number of individual marine mammals for each species that could potentially be harassed annually is small. Taking these two factors together, we conclude that there will be no biologically significant effects on the survival and reproduction of these species or stocks. Please see Estimate of Take by Harassment section below for the calculation of these take numbers.

### Estimates of Take by Harassment

There are three general kinds of sounds recognized by NMFS: continuous (such as shipping sounds), intermittent (such as vibratory pile driving sounds), and impulse. No impulse noise activities, such as blasting or standard pile driving, are associated with this project, thus NMFS' 160-dB threshold criterion for estimating Level B harassment from impulse sounds is not applicable for this activity. The noise sources of potential concern are regasification/offloading (which is a continuous sound) and dynamic positioning of vessels using thrusters (an intermittent sound). Based on research by Malme *et al.* (1983, 1984), for both continuous and intermittent sound sources, Level B harassment is presumed to begin at received levels of 120-dB.

None of the continuous sound sources associated with construction or operation of the Northeast Gateway Project is expected to exceed the 120-dB threshold for Level B harassment. However, the intermittent noises from

thruster use associated with dynamic positioning of vessels during either construction or operation (docking) may occasionally exceed this 120-dB threshold. Consequently, thruster use has the potential for a "take" by Level B harassment of any marine mammal occurring within a zone of ensonification (greater than 120 dB) emanating from the sound source. This area, known as the ZOI, has a variable maximum radius dependent on water depth and associated differences in transmission loss (see Sections 1.1.3 and 1.2.1 in the IHA application for more detail):

- For shallow-water depths (40 m (131 ft)) representative of the northern segment of the Pipeline Lateral construction, the 120-dB radius is 3.31 km (2 mi) and associated ZOI is 34 km<sup>2</sup>.
- For moderate depths (80 m (262 ft)) representative of the Deepwater Port location and Pipeline Lateral segment nearest SBNMS, the 120-dB radius is 2.56 km (1.6 mi) and associated ZOI is 21 km<sup>2</sup>.
- For deeper depths (120 m (394 ft)) representative of the deepest waters of the Project analysis area, the radius is 2.18 km (1.4 mi) and associated ZOI is 15 km<sup>2</sup>.

The basis for Northeast Gateway's "take" estimate is the number of marine mammals that would be exposed to sound levels in excess of 120 dB. Typically this is determined by multiplying the ZOI by local marine mammal density estimates, and then correcting for seasonal use by marine mammals, seasonal duration of noise-generating activities, and estimated duration of individual activities when the maximum noise-generating activities are intermittent or occasional. In the case of data gaps, a conservative approach was to ensure 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 proposed project area from May to November. However, the occurrence and abundance of fin, humpback, and minke is not well documented within the project area. Nonetheless, NMFS agrees with the PCCS that better data on cetacean distribution within Massachusetts Bay, such as those published by the National Centers for Coastal Ocean Science (NCCOS, 2006) should be used to determine potential takes of marine mammals in the vicinity of 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 NOAA 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: Cetacean and Turtles Assessment Program (CETAP), Canadian Department of Fisheries and Oceans, PCCS, International Fund for Animal Welfare, NOAA's NEFSC, New England Aquarium, Woods Hole Oceanographic Institution, and the University of Rhode Island. A total of 653,725 km (406,293 mi) 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 proposed project area (NCCOS, 2006).

The MBO's Cetacean and Seabird Assessment Program (CSAP) was contracted from 1980 to 1988 by NMFS NEFSC to provide an assessment of the relative abundance and distribution of cetaceans, seabirds, and marine turtles in the shelf waters of the northeastern United States (MBO, 1987). The CSAP program was designed to be completely compatible with NMFS 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 5,210 km (3,383 mi) 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 567,955 km (913,840 mi) of survey track for small cetaceans (dolphins and porpoises) and 658,935 km (1,060,226 mi) 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.

Owning to the comprehensiveness and total coverage of the NCCOS cetacean distribution and abundance study, consequently, NMFS recalculated 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

proposed project area is provided below, in the Marine Mammals Affected by the Activity section. For a detailed description and calculation of the cetacean abundance data and SPUE, please refer to the NCCOS study (NCCOS, 2006). These data show that the upper limit of the relative abundance of North Atlantic right, fin, humpback, minke, and pilot whales, and Atlantic white-sided dolphins for all seasons, 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.

Although sound transmission loss, and therefore the ZOI, varies with water depth, the potential take numbers are calculated by using the radius of the largest ZOI, which is 3.31 km (2 mi).

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 below), as a conservative hypothetical strip width (W). Thus the area density (D) of these species in the proposed project area can be obtained by the following formula:

$$D = SPUE/2W,$$

Based on the calculation, the estimated annual take numbers for North Atlantic right, fin, humpback, minke, and pilot whales (*Globicephala spp.*), and Atlantic white-sided dolphins (*Lagenorhynchus acutus*), within the proposed project area of approximately 200 km<sup>2</sup> (77.3 mi<sup>2</sup>) maximum ZOI, corrected for 50 percent underwater, are 3, 13, 24, 2, 15, and 49, respectively.

In addition, common dolphins (*Delphinus delphis*), harbor porpoises (*Phocoena phocoena*), harbor seals (*Phoca vitulina*), and gray seals (*Halichoerus grypus*) could also be taken by Level B harassment as a result of the proposed deepwater LNG port project. The numbers of estimated take of these species are not available as NMFS does not have abundance data of these species within the proposed project area. The population estimates of these marine mammal species and stock in the west North Atlantic basin are 120,743, 89,700, 99,340, and 195,000 for common dolphins, harbor porpoises, harbor seals, and gray seals, respectively. Since the Massachusetts Bay represents only a small fraction of the west North Atlantic basin where these animals occur, and that these animals do not congregate in the vicinity of the proposed project area, NMFS believes that only a relatively small number numbers of these marine mammal species would be potentially

affected by the proposed Northeast Gateway LNG deepwater project.

### Potential Impact on Habitat

#### Construction

Construction of the Port and Pipeline Lateral will alter marine mammal habitat in several ways: disturbance of the seafloor, removal of sea water for hydrostatic testing, and generation of additional underwater noise. Although approximately 1,042 acres of seafloor (43 acres for the Port; 999 acres for the Pipeline Lateral) will be disturbed during construction, the majority of this impact will be temporary. Seafloor disturbance will include plowing to construct a trench for the pipeline. The pipelay and plow vessels will be maneuvered using a multi-point anchor system. Although the anchor system will include mid-line buoys to minimize cable sweep of the seafloor, approximately 814 acres may be temporarily affected. Crossing of two existing cables will require armoring, a change in substrate conditions in an area about 0.14 acres in size.

Once the lateral and flowlines are installed, about 3,100,000 gallons of sea water will be withdrawn to be used for hydrostatic testing. This volume is small compared to the volume of Massachusetts Bay. Although the sea water will be returned to the environment, the associated plankton will be unlikely to survive. However, because circulation patterns in the Bay ensure that plankton will be transported into the Project area continuously, this hydrostatic test will not affect the sustainability of the plankton communities in the Bay.

Construction of the Port and Pipeline Lateral will result in a reduction of benthic productivity in the Project footprint. Once the disturbance ceases, the substrate will be available for recruitment of benthic organisms. Because some of the substrate will be converted from soft to artificial hard substrate, the soft-bottom benthic community may be replaced with organisms associated with naturally occurring hard substrate, such as sponges, hydroids, bryozoans, and associated species. In other areas, re-establishment of a benthic community similar to that in adjacent areas is expected to take a period of weeks to several years.

#### Operations

Operation of the Port and Pipeline Lateral will result in long-term effects on the marine environment, including alteration of seafloor conditions, continued disturbance of the seafloor,

regular withdrawal of sea water, and regular generation of underwater noise. A small area (0.14 acre) along the Pipeline Lateral will be permanently altered (armored) at two cable crossings. In addition, the structures associated with the Port (flowlines, mooring wire rope and chain, suction anchors, and PLEMs) will occupy 4.8 acres of seafloor. An additional area of the seafloor of up to 38 acres will be subject to disturbance due to chain sweep while the buoys are occupied. The benthic community in the up-to 38 acres of soft bottom that may be swept by the anchor chains while EBRVs are docked will have limited opportunity to recover, so this area will experience a long-term reduction in benthic productivity.

Each EBRV will require the withdrawal of an average of 4.97 million gallons per day of sea water for general ship operations during its 8-day stay at the Port. As with hydrostatic testing, plankton associated with the sea water will not likely survive this activity. Based on densities of plankton in Massachusetts Bay, it is estimated that sea water use during operations will consume, on a daily basis, about 3 200 x 1,010 phytoplankton cells (about several hundred grams of biomass), 6.5 x 108 zooplankters (equivalent to about 1.2 kg of copepods), and on the order of 30,000 fish eggs and 5,000 fish larvae. Also, the daily removal of sea water will reduce the food resources available for planktivorous organisms. However, the removal of these species is minor and unlikely to measurably affect the food sources available to marine mammals.

### Monitoring, Mitigation, and Reporting

#### *Port Construction Measures*

##### General

The construction activities will be limited between this May and November, 2007 time-frame so that acoustic disturbance to the endangered North Atlantic right whale can largely be avoided.

##### Visual Monitoring Program

The Northeast Gateway Project will employ two qualified, NMFS-approved, MMOs on each lay barge, bury barge, and DSV for visual shipboard surveys during construction activities. Qualifications for these individuals will include direct field experience on a marine mammal observation vessel and/or aerial surveys in the Atlantic Ocean/Gulf of Mexico. The observers (one primary and 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 marine mammal observer training and be approved in advance by NMFS after a review of their resume.

The shipboard observers 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 mile during clear weather conditions for the shipboard observers. The observer will scan the ocean surface by eye for a minimum of 40 minutes every hour. All sightings will be recorded on 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.

##### Distance and Noise Level for Cut-Off

During construction, the following procedures will be followed upon detection of a marine mammal within 0.5 mi (0.8 km) of the construction vessels:

(1) 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 vessel(s) will cease any movement and cease all activities that emit sounds reaching a received level of 120 dB re 1 microPa 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 microPa. Vessels transiting the construction area such as pipe haul barge tugs will also be required to maintain these separation distances.

(3) 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 under way, all construction vessels will remain 500 yd (457 m) away from right whales, and 100 yd (91 m) away from all other whales to the extent physically feasible given navigational constraints as required by NMFS.

(2) All construction vessels 300 gross tons or greater will maintain a speed of 10 knots 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 or less within 5 mi (8 km) of any recent sighting location.

(3) Vessels transiting through the Cape Cod Canal and Cape Cod Bay between January 1 and May 15 will reduce speed to 10 knots 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 Cape Cod Bay. 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 TSS and all measures for the EBRVs when transiting to the Port (see Port Operation Measures).

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

In addition to visual monitoring, the Northeast Gateway and Algonquin will work with NMFS, the SBNMS, the Cornell University Bioacoustics Laboratory (Cornell), and the Woods Hole Oceanographic Institute (WHOI) to install several passive acoustic systems for monitoring construction noise and detecting marine mammals within the project area, and provide early warnings for potential occurrence of right whales and other marine mammals in the vicinity of the project area. The Northeast Gateway will also work with NMFS to utilize passive acoustic technology to conduct PAM to enhance their monitoring program. These passive acoustic systems include a set of near real-time auto-detection surface buoys (Abs) developed by WHOI with a special electronic notification package developed by Cornell, attached to the buoy. Some of these passive acoustic devices are already in place.

##### *Port Operation Measures*

All individuals onboard the EBRVs responsible for the navigation and

lookout duties on the vessel must receive training prior to assuming navigation and lookout duties, a component of which will be training on marine mammal sighting/reporting and vessel strike avoidance measures. Crew training of EBRV personnel will stress individual responsibility for marine mammal awareness and reporting.

If a marine mammal is sighted by a crew member, an immediate notification will be made to the Person-in-Charge on board the vessel and the Northeast Port Manager, who will ensure that the required reporting procedures are followed.

#### Vessel Strike Avoidance

(1) All EBRVs approaching or departing the port will comply with the MSR system to keep apprised of right whale sightings in the vicinity. Vessel operators will also receive active detections from the passive acoustic array prior to and during transit through the northern leg of the Boston TSS where the buoys are installed.

(2) In response to active right whale sightings (detected acoustically or reported through other means such as the MSR or SAS), and taking into account safety and weather conditions, EBRVs will take appropriate actions to minimize the risk of striking whales, including reducing speed to 10 knots or less and alerting personnel responsible for navigation and lookout duties to concentrate their efforts.

(3) EBRVs will maintain speeds of 12 knots or less while in the TSS until reaching the vicinity of the buoys (except during the seasons and areas defined below, when speed will be limited to 10 knots or less). At 1.86 miles (3 km) from the NEG port, speed will be reduced to 3 knots, and to less than 1 knot at 1,640 ft (500 m) from the buoy.

(4) EBRVs will reduce transit speed to 10 knots or less (unless hydrographic, meteorological, or traffic conditions dictate an alternative speed to maintain the safety or maneuverability of the vessel) from March 1 - April 30 in all waters bounded by straight lines connecting the following points in the order stated below. This area is also known as the Off Race Point Seasonal Management Area (SMA).

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

(5) EBRVs will reduce transit speed to 10 knots or less (unless hydrographic,

meteorological, or traffic conditions dictate an alternative speed to maintain the safety or maneuverability of the vessel) from April 1 - July 31 in all waters bounded by straight lines connecting the following points in the order stated below. This area is also known as the Great South Channel SMA.

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

(6) EBRVs are not expected to transit Cape Cod Bay. However, in the event transit through Cape Cod Bay is required, EBRVs will reduce transit speed to 10 knots or less (unless hydrographic, meteorological, or traffic conditions dictate an alternative speed to maintain the safety or maneuverability of the vessel) from January 1 - May 15 in all waters in Cape Cod Bay, extending to all shorelines of Cape Cod Bay, with a northern boundary of 42°12'N latitude.

(7) In such cases where speeds in excess of the ten knot speed maximums as described above 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 the NMFS Northeast Region Ship Strike Coordinator.

#### PAM Program

An array of ABs will be installed in the Boston TSS that meets the criteria specified in the recommendations developed by NOAA through consultation with the USCG under the National Marine Sanctuary Act (NMSA). The system will provide near real-time information on the presence of vocalizing whales in the shipping lanes.

An archival array of acoustic recording units (ARUs), or "pop-ups," will be installed around the port site that meets the criteria specified in the program developed by NOAA in consultation with the USCG under the NMSA. The ARUs will be in place for 5 years following initiation of operations to monitor the actual acoustic output of port operations and 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.

#### Reporting

During construction, weekly status reports will be provided to NMFS utilizing standardized reporting forms.

In addition, the Northeast 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 and operation, sightings of any injured or dead marine mammals will be reported immediately to the USCG or NMFS, regardless of whether the injury or death is caused by project activities.

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 and operation. 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 and operation activities shall also be included in the annual report.

#### Endangered Species Act (ESA)

On February 5, 2007, NMFS concluded consultation with MARAD and the USCG, under section 7 of the ESA, on the proposed construction and operation of the Northeast Gateway LNG facility and issued a biological opinion. The finding of that consultation was that the construction and operation of the Northeast Gateway 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. NMFS' IHA will not have impacts beyond what was analyzed in the biological opinion. Therefore, additional consultation is not required.

#### National Environmental Policy Act

MARAD and the USCG released a Final EIS/Environmental Impact Report (EIR) for the proposed Northeast Gateway Port and Pipeline Lateral. A notice of availability was published by MARAD on October 26, 2006 (71 FR 62657). The Final EIS/EIR provides detailed information on the proposed project facilities, construction methods

and analysis of potential impacts on marine mammal.

NMFS was a cooperating agency (as defined by the Council on Environmental Quality (40 CFR 1501.6)) in the preparation of the Draft and Final EISs. NMFS has reviewed the Final EIS and has adopted it. Therefore, the preparation of another EIS or EA is not warranted.

#### Determinations

NMFS has determined that the impact of construction and operation of the Northeast Gateway 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 Northeast Gateway LNG facility and associated pipeline during its construction and subsequent operation. These activities are expected to result in some local short-term displacement and will have no more than a negligible impact on the affected species or stocks of marine mammals.

This determination is supported by measures described in this document under “*Marine Mammal Mitigation, Monitoring and Reporting*” 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 small zone of impact) and would be avoided through the incorporation of the shut-down mitigation measures described 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 and operations, the estimated number of marine mammals to be harassed is small.

#### Authorization

NMFS has issued an IHA to Northeast Gateway and Algonquin for the taking (by Level B harassment) during construction and operation of the Northeast Gateway Port, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated.

Dated: May 7, 2007.

#### James H. Lecky

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

[FR Doc. E7-9216 Filed 5-11-07; 8:45 am]

BILLING CODE 3510-22-S

## COMMODITY FUTURES TRADING COMMISSION

### Proposal To Exempt the Trading and Clearing of Certain Credit Default Products Traded on the Chicago Board Options Exchange and Cleared Through the Options Clearing Corporation Pursuant to the Exemptive Authority in § 4(c) of the Commodity Exchange Act

**AGENCY:** Commodity Futures Trading Commission.

**ACTION:** Notice of proposed order and request for comment.

**SUMMARY:** The Commodity Futures Trading Commission (“CFTC” or the “Commission”) is proposing to exempt the trading and clearing of certain credit default products that are proposed to be traded on the Chicago Board Options Exchange (“CBOE”) and cleared through the Options Clearing Corporation (“OCC”) from any applicable provisions of the Commodity Exchange Act (“CEA”).<sup>1</sup> Authority for this exemption is found in Section 4(c) of the CEA.<sup>2</sup>

**DATES:** Comments must be received on or before May 29, 2007.

**ADDRESSES:** Comments may be submitted by any of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov/http://frwebgate.access.gpo/cgi-bin/leaving>. Follow the instructions for submitting comments.

- *E-mail:* [secretary@cftc.gov](mailto:secretary@cftc.gov). Include “OCC Clearing Credit Default Options” in the subject line of the message.

- *Fax:* 202-418-5521.

- *Mail:* Send to Eileen A. Donovan, Acting Secretary, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street, NW., Washington, DC 20581.

- *Courier:* Same as mail above.

All comments received will be posted without change to <http://www.CFTC.gov/>.

**FOR FURTHER INFORMATION CONTACT:** John C. Lawton, Deputy Director and Chief Counsel, 202-418-5480, [jlawton@cftc.gov](mailto:jlawton@cftc.gov), and Robert B. Wasserman, Associate Director, 202-418-5092, [rwasserman@cftc.gov](mailto:rwasserman@cftc.gov), Division of Clearing and Intermediary Oversight, Commodity Futures Trading Commission, Three Lafayette Centre, 1151 21st Street, NW., Washington, DC 20581.

#### SUPPLEMENTARY INFORMATION:

<sup>1</sup> 7 U.S.C. 1 *et seq.*

<sup>2</sup> 7 U.S.C. 6(c).

## I. Introduction

The OCC is both a Derivatives Clearing Organization (“DCO”) registered pursuant to Section 5b of the CEA, 7 U.S.C. 7a-1, and a securities clearing agency registered pursuant to Section 17A of the Securities Exchange Act of 1934 (“1934 Act”).<sup>3</sup> The CBOE is a national securities exchange registered as such under Section 6 of the 1934 Act.<sup>4</sup>

CBOE has filed with the Securities and Exchange Commission (“SEC”) proposed rule changes to provide for the listing and trading on CBOE of cash-settled, binary call options based on credit events in one or more debt securities.<sup>5</sup> These options are referred to as Credit Default Options (“CDOs”), and would pay the holder a specified amount upon the occurrence, as determined by CBOE, of a “Credit Event,” defined to mean an “Event of Default” on any debt security issued or guaranteed by a specified “Reference Entity.”

CBOE has also filed with the SEC proposed rule changes to provide for the listing and trading on CBOE of Credit Default Basket Options (“CDBOs”).<sup>6</sup> These are similar in concept to CDOs, except that a CDBO covers more than one Reference Entity, and for each Basket Component (that is, a single Reference Entity) a notional value (a fraction of the aggregate Notional Face Value of the basket) and a recovery rate is specified. Upon the occurrence of a Credit Event involving a particular Reference Entity, the payout to the holder is equal to the product of (a) The Notional Face Value of that Basket Component multiplied by (b) one minus the recovery rate specified in advance for that Basket Component. CDBOs may be of the multiple-payout variety, or of the single-payout variety, where a payout occurs only the first time a Credit Event is confirmed with respect to a Reference Entity prior to expiration.

OCC has filed with the CFTC, pursuant to Section 5c(c) of the CEA and Commission Regulations 39.4(a) and 40.5 thereunder,<sup>7</sup> requests for approval of rules and rule amendments that would enable OCC to clear and settle these CDOs and CDBOs in its capacity as a registered securities clearing agency (and not in its capacity

<sup>3</sup> 15 U.S.C. 78q-1.

<sup>4</sup> 15 U.S.C. 78f.

<sup>5</sup> See Release No. 34-55251, 72 FR 7091 (Feb. 14, 2007).

<sup>6</sup> See *SR-CBOE-2007-026*.

<sup>7</sup> 7 U.S.C. 7a-2(c), 17 CFR 39.4(a), 40.5.