

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

Submitted via ITP.Guan@noaa.gov

December 9, 2013

RE: RIN 0648-XC22 Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Operation, Maintenance, and Repair of the Northeast Gateway Liquefied Natural Gas Port and the Algonquin Pipeline Lateral Facilities in Massachusetts Bay

Dear Mr. Payne,

On behalf of Whale and Dolphin Conservation (WDC) and The Humane Society of the United States (HSUS), we are submitting the following comments for consideration regarding the Taking of Marine Mammals Incidental to Operation, Maintenance, and Repair of the Northeast Gateway Liquefied Natural Gas Port and the Algonquin Pipeline Lateral Facilities in Massachusetts Bay [78 FR 69049, November 18, 2013]. We do not support granting authorization for the take of marine mammals, as several of the affected species are endangered, and we believe the anticipated effects on these species are more severe than the proposal would suggest. The proposed activities do not prevent injury to sanctuary resources as required by the National Marine Sanctuaries Act, and in fact, the National Marine Sanctuaries Program has found that such projects are “likely to have significant, constant, long-term, adverse effects upon marine resources” (SBNMS DMP/EA). Adverse impacts would affect several endangered baleen whale species as well as the critically endangered North Atlantic right whale. Although the applicant has received prior IHA’s, this request represents their desire to expand the nature of activities and thus the impact of the project.

Direct Impacts on Endangered Whales

In their application, Northeast Gateway (NEG) indicates that all maintenance and repair activities will be scheduled between May 1 and November 30, and states that North Atlantic right whales move almost entirely away from the coast in the summer months. This is troubling, as data clearly indicate that these whales are detected within Massachusetts Bay year round, often accompanied by calves (Mussoline et al. 2012, NOAA NARWSS and SAS) (Figure 1). Other endangered whale species can also be found in Massachusetts Bay during this time span, and while it is not mentioned in the application, since no lethal take can be authorized, any takes would violate both the Marine Mammal Protection Act and the Endangered Species Act.

Additionally, while the application calls for Energy Bridge Regasification Vessel (EBRV) speeds of 12 knots or less while in the Traffic Separation Scheme (TSS), unless in active Seasonal Management Areas, we believe that vessels should be mandated to limit their speeds to 10



knots as right whales have been sighted throughout Massachusetts and Cape Cod Bay at all times of the year. Ten knots is the speed that NMFS has found to be the most risk averse (78 Fed. Reg. 73726, December 9, 2013). NEG also intends to rely on active right whale sightings and acoustic detections for determining when their vessels must slow to 10 knots or less, but it is important to note that not all whales in a vicinity will be seen or heard, and even when a whale has been detected, it is not stationary and a detection can only provide a record of where whales have been recently seen. Vessel strikes have been a leading cause of mortality for critically endangered North Atlantic right whales, which will be at risk not only from the proposed vessel activities, but NEG also acknowledges that there may be takes resulting from unforeseen repairs that require additional vessels or cause an increase in vessel density in areas outside the port exclusion zone.

In addition to collision risk, these activities may result in reduced fitness. The applicant also acknowledges that maintenance and repair activities will result in “increased levels of turbidity which can interfere with the ability of whales to forage effectively by obscuring visual detection of or dispersing potential prey.” They also claim that “displacement will be temporary, and whales are likely to find suitable prey in surrounding areas.” However, there is little understanding of the duration of displacement from key forage resources that may be significant for certain seasons or demographics in the population. Further, NEG does not consider that whales displaced from the immediate area may be forced into areas of higher vessel traffic or fishing effort, in which case they are at increased risk of serious injury or mortality.

Concerns Regarding Water Withdrawals and Discharges

We have some major concerns regarding the dramatic increase in water withdrawal that has been requested. These withdrawals would increase from 2.6 billion gallons of sea water per year to 11 billion gallons per year. The applicant claims that the biomass of plankton and phytoplankton lost to entrainment is “minor” and “not significant.” We question this conclusion as it is difficult to calculate abundance of planktonic species due to their patchy distribution (Baumgartner et al. 2003). Further, an increase of 400% or more in water uptake is bound to have significant effects on localized plankton aggregations. The applicant compares this biomass loss against the total biomass of these trophic levels in Massachusetts Bay, which is an inappropriate comparison, given the non-uniform distribution of plankton, and the disregard for the intensified impact that this activity will have in the localized region of the bay.

We have significant concerns regarding the increased discharge of warm water during off-loading. We believe that there are likely to be adverse impacts to zooplankton in the area and, consequently, the forage base for several endangered whale species. In particular, this warmer water could affect right whale prey distribution and prey availability, as their primary prey, *Calanus finmarchicus*, tends to be concentrated in discrete thermal layers (Baumgartner and Mate, 2005). Research by Keller et al (2002) has also indicated that presence or absence of right whales was dependent on water temperature differences of as little as 2°C. This is especially worrisome as the applicant notes that daily change in discharge temperature could be as great as 12°C. We are unaware of studies done by the applicant or others to mitigate this concern.

Acoustic Impacts

The applicant does not appear concerned that underwater sound resulting from maintenance and operation of the port is likely to result in harassment to marine mammals, although they mention that “potential impacts related to noise are increased when a DP dive vessel is used”, and “intermittent noise from thruster use...may result in the occasional exceedance [sic] of

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the 120 dB threshold for intermittent noise sources.” Additionally, the sound propagation calculations they performed were based on outdated data that may no longer be applicable as environmental factors such as seabed composition are likely to have changed in the past twenty years, and the applicant acknowledges that the maximum radius of the Zone of Influence (ZOI) is inherently variable. Furthermore, the applicant does not take into account the fact that GDF SUEZ-Neptune LNG is also operating in Massachusetts Bay (Figure 2), and because the ports are “very similar in their potential need and type or maintenance and repair”, the cumulative impacts of noise from both ports should be considered but have not been discussed by the applicant.

We are also greatly concerned by the estimated number of takes of marine mammals, particularly the North Atlantic right whale. The applicant estimates takes for this species as high as 29 per year due to port operations and maintenance and repair activities of the NEG Port and the Algonquin Pipeline Lateral. The applicant states that “if substantial variability in prey resources across the entire Gulf of Maine area causes only variation in calving intervals of one of the whale species, any small effect of NEG Port operations on whale distributions or demographics cannot possibly be detectable.” This “one whale species” happens to be the critically endangered North Atlantic right whale, which cannot afford increased calving intervals that may result from a lack of prey resources either due to disruption of plankton patches or noise that displaces them into more marginal foraging areas. The impact on prey resources cannot be lightly dismissed given perturbations resulting from changes in water temperature in the North Atlantic that are already being reported in the media (Fraser 2013).

On a final note, there appear to be some inconsistencies within the application that warrant further investigation. For example, the applicant claims at one point that “[i]n fact, to date, based on both ERBV vessel observations and MARU data, no take by harassment has been recorded during NEG Port operations.” However, later in the application they state that “[t]o date, these mitigation and monitoring activities have successfully safeguarded marine mammals and sea turtles, resulting in a total of only 1 take by acoustic harassment over the past 3 years of operation.” Such inattention to detail calls into question the reliability of this applicant’s proposed mitigation techniques and record keeping, both essential for ensuring the lowest possible impact on marine mammals.

Conclusion

The applicant fails to sufficiently address all potential situations in which harassment to marine mammals may occur, including during times of simultaneous repair by both NEG and Neptune, and when marine mammals may be displaced into areas of greater risk including areas of increased vessel traffic or fishing activity. NEG needs to address cumulative impacts of both LNG deepwater ports that may affect seawater usage and discharge and their impacts on plankton resources, as well as underwater noise, which will be necessarily increased. These ports border both the Stellwagen Bank National Marine Sanctuary and Massachusetts State Sanctuary waters, which are both designated areas for marine resource protection and key habitat for marine mammals. We are concerned that the project-related and cumulative impacts have not been sufficiently analyzed and that the impacts from the changes and additions to the IHA may be greater than were stated. We urge NMFS to require additional information before granting this permit.

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Thank you for the opportunity to comment,



Kate McPherson
Policy Officer
Whale and Dolphin Conservation



Sharon B. Young
Marine Field Issues Director
The Humane Society of the United States

Literature Cited:

Baumgartner, M. F, T. V. N. Cole, R. G. Campbell, G. J. Teegarden, and E. G. Durbin. 2003. Associations between North Atlantic right whales and their prey, *Calanus finmarchicus*, over diel and tidal time scales. Marine Ecology Progress Series Vol. 264: 155–166.

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Mussoline S, Risch D, Clark C, Hatch L and others. 2012. Seasonal and diel variation in North Atlantic right whale up-calls: implications for management and conservation in the northwestern Atlantic Ocean. Endang Species Res 17: 17–26

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http://stellwagen.noaa.gov/management/mpr/pdfs/5_SBNMS_DMP_HumanUse.pdf

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Figure 1. Cumulative right whale sightings in Massachusetts Bay during the month of July across years.

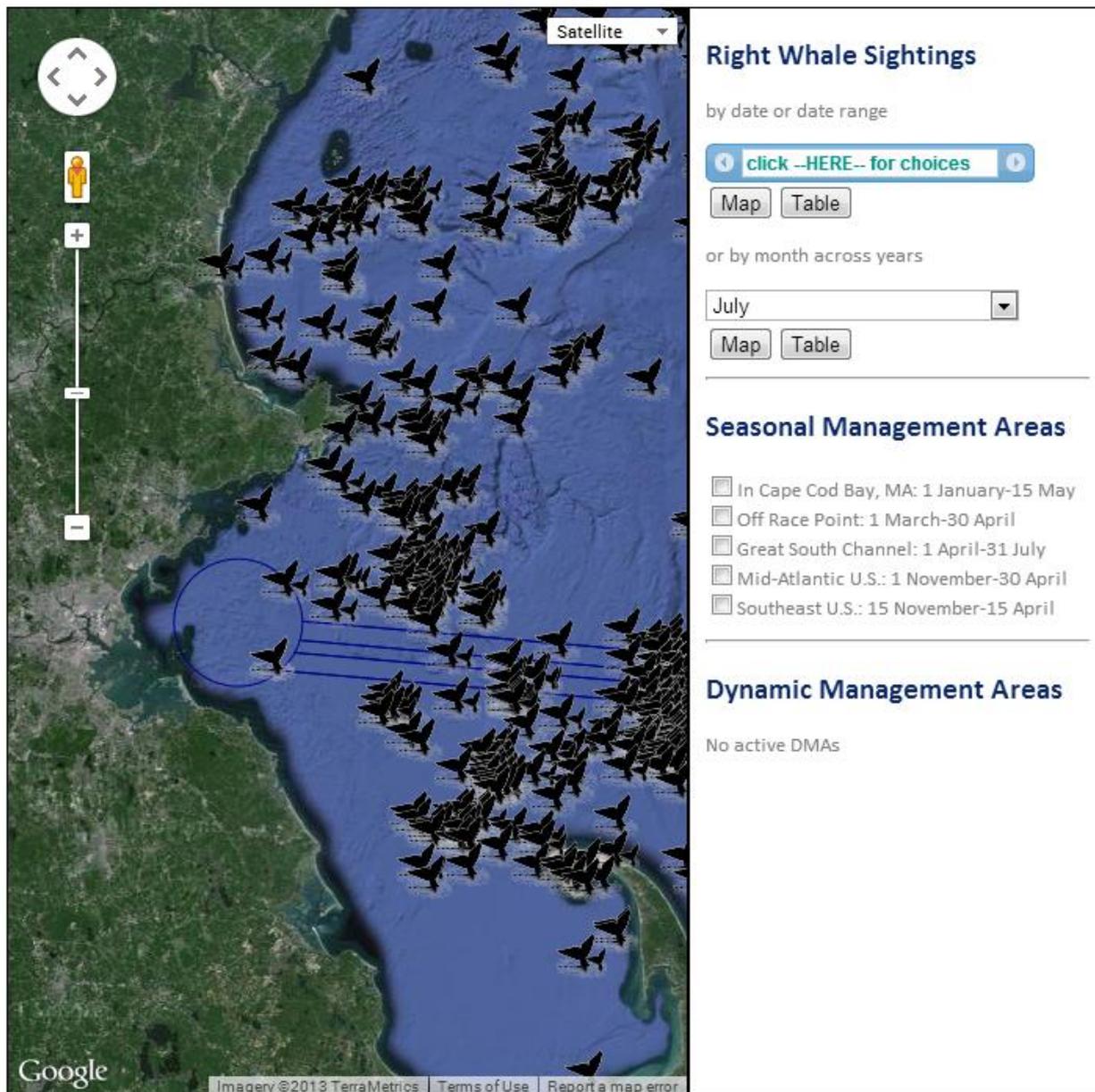
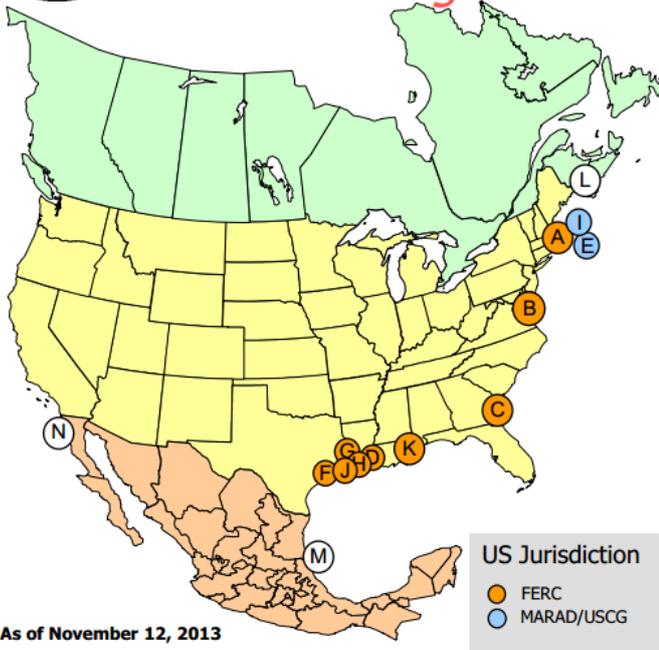


Figure 2. Existing North American LNG terminals.



North American LNG Import/Export Term

Existing



As of November 12, 2013

Note: There is an existing import terminal in Peñuelas, PR. It does not appear on this map since it can not serve or affect deliveries in the Lower 48 U.S. states.

U.S.

- A. Everett, MA :** 1.035 Bcfd (GDF SUEZ - DOMAC)
- B. Cove Point, MD :** 1.8 Bcfd (Dominion - Cove Point LNG)
- C. Elba Island, GA :** 1.6 Bcfd (El Paso - Southern LNG)
- D. Lake Charles, LA :** 2.1 Bcfd (Southern Union - Trunkline LNG)
- E. Offshore Boston:** 0.8 Bcfd, (Excelerate Energy – Northeast Gateway)
- F. Freeport, TX:** 1.5 Bcfd, (Cheniere/Freeport LNG Dev.) *
- G. Sabine, LA:** 4.0 Bcfd (Cheniere/Sabine Pass LNG) *
- H. Hackberry, LA:** 1.8 Bcfd (Sempra - Cameron LNG) *
- I. Offshore Boston, MA :** 0.4 Bcfd (GDF SUEZ – Neptune LNG)
- J. Sabine Pass, TX:** 2.0 Bcfd (ExxonMobil – Golden Pass) (Phase I & II)
- K. Pascagoula, MS:** 1.5 Bcfd (El Paso/Crest/Sonangol - Gulf LNG Energy LLC)

Canada

- L. Saint John, NB:** 1.0 Bcfd, (Repsol/Fort Reliance - Canaport LNG)

Mexico

- M. Altamira, Tamulipas:** 0.7 Bcfd, (Shell/Total/Mitsui – Altamira LNG)
- N. Baja California, MX:** 1.0 Bcfd, (Sempra – Energia Costa Azul)

* Authorized to re-export delivered LNG

Office of Energy Projects

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MARINE MAMMAL COMMISSION

17 December 2013

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

Dear Mr. Payne:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the application submitted by Excelerate Energy L.P. and TetraTech EC, Inc., on behalf of Northeast Gateway Energy Bridge L.P. (Northeast Gateway) and Algonquin Gas Transmission L.L.C. (Algonquin), seeking authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act (MMPA) to take small numbers of marine mammals by harassment. The taking would be incidental to operation, maintenance, and repair of the Northeast Gateway liquefied natural gas (LNG) port and the Algonquin Pipeline Lateral facilities in Massachusetts Bay from January 2014 through January 2015. The Commission also has reviewed the National Marine Fisheries Service's (NMFS) 18 November 2013 notice (78 Fed. Reg. 69049) announcing receipt of the application and proposing to issue the authorization, subject to certain conditions. The Commission previously has commented on similar incidental harassment authorizations for the Northeast Gateway LNG project.

RECOMMENDATION

The Marine Mammal Commission recommends that the National Marine Fisheries Service issue the requested incidental harassment authorization, subject to inclusion of the proposed mitigation and monitoring measures.

BACKGROUND

The Northeast Gateway Port, located in Massachusetts Bay, consists of two submerged buoys used for delivery of re-gasified natural gas to onshore markets. The buoys are located 21 km offshore of Massachusetts in federal waters 82 to 88 m in depth. Northeast Gateway would use specially designed energy bridge re-gasification vessels that would dock at the submerged buoys to deliver natural gas via the Algonquin Pipeline Lateral. The vessels would use a dynamic positioning system to dock but would "weathervane" on the buoy mooring system during re-gasification.

Routine and emergency maintenance of the Northeast Gateway Port could involve various support vessels, divers, a remotely operated vehicle, tugs/barges, and a re-gasification vessel equipped with a dynamic positioning system. In addition, routine and unplanned operation and maintenance of the Algonquin Pipeline Lateral could involve various support vessels, a remotely operated vehicle, divers, and a dive vessel that also would be equipped with a dynamic positioning system.

NMFS preliminarily has determined that the proposed activities could result in a temporary modification in the behavior of small numbers of up to 14 species of marine mammals, but that any impact on the affected species would be negligible. It does not anticipate any take of marine mammals by death or serious injury. NMFS believes that the potential for temporary or permanent hearing impairment will be at the least practicable level because of the proposed mitigation and monitoring measures. Those measures include—

- (1) requiring all re-gasification, acoustic monitoring, and support vessels approaching or departing from the port to:
 - a. use the Boston Transportation Scheme (TSS) on their approach to and departure from the port and maintain a maximum transit speed of 22 km/hr (12 knots) or less;
 - b. alert the Port manager before arrival for the Port manager to relay vessel approach information to Cornell University;
 - c. obtain current North Atlantic right whale sighting information; and
 - d. comply with the Mandatory Ship Reporting System;
- (2) requiring trained lookouts to monitor visually for marine mammals while the vessel is navigating the TSS, the Area to be Avoided (ATBA), the Great South Channel Seasonal Management Area, or the Stellwagen Bank National Marine Sanctuary (NMS) and whenever the vessel is using its dynamic positioning system;
- (3) requiring a NMFS-approved protected species observer to monitor visually for marine mammals during all maintenance and repair work conducted during daylight hours;
- (4) requiring any lookout or observer that detects a marine mammal within a 3.3-km (2-mi) radius of the vessel to notify immediately the Officer-of-the-Watch onboard the vessel or other designated official and to record the sighting in the sighting log;
- (5) requiring all re-gasification, acoustic monitoring, and support vessels to reduce vessel speed to 18.5 km/hr (10 knots) or less:
 - a. when a lookout detects a marine mammal within a 3.3-km (2-mi) radius of a maneuvering vessel;
 - b. within a 14.8-km (8-nmi) radius of a right whale sighting;
 - c. within a 9.3-km (5-nmi) radius of an auto-detecting buoy that has detected a right whale;
 - d. within the Off Race Point Seasonal Management Area (SMA) from 1 March through 30 April;
 - e. within the Great South Channel SMA from 1 April through 31 July;
 - f. within the Cape Cod Bay SMA from 1 January through 15 May;
 - g. within the boundaries of a Dynamic Management Area (DMA);
 - h. when vessels are greater than or equal to 300 gross tons or when vessels less 300 gross tons traveling between shore and the port are within 8 km (5 mi) of any sighting location or are within an SMA or DMA ; and
 - i. when transiting to and from the TSS and the port;
- (6) reducing vessel speed to 5.5 km/hr (3 knots) at 3 km (1.9 mi) from the Port and less than 1.9 km/hr (1 knot) at 500 m (0.3 mi) from the buoy;
- (7) refraining from approaching a right whale closer than 460 m (500 yd) and any other whale closer than 91 m (100 yd), and when approaching or departing the port and within the

- ATBA surrounding the port, maintaining a minimum distance of 1 km (0.6 mi) from any visually detected right whale and 91 m (100 yd) from all other visually detected whales;
- (8) delaying departure from the port when a whale is visually observed within 1 km (0.6 mi) of the port or a confirmed acoustic detection is reported on either of the two auto-detecting buoys closest to the port, until the whale is either more than 1 km away or 30 minutes have passed without an acoustic detection;
 - (9) minimizing use of the dynamic positioning system when a whale is observed within a 3.3km (2-mi) radius of the vessel until the whale has moved away;
 - (10) ceasing all repair and maintenance activities that emit sounds with a source level equal to or greater than 139 dB re 1 μ Pa at 1 m when a right whale is sighted within or approaching 460 m (500 yd) of the vessel or any other marine mammal is sighted within 91 m (100 yd) of the vessel, until the whale is either outside the restricted zone or 30 minutes have passed without a re-detection;
 - (11) using ramp-up procedures for equipment with source levels equal to or greater than 139 dB re 1 μ Pa at 1 m and minimizing use of that equipment;
 - (12) restricting planned maintenance and repair activities to the period between 1 May and 30 November;
 - (13) shutting down operations if visibility is less than 0.8 km (0.5 mi) between 1 December and 30 April;
 - (14) minimizing the use of entangling material (e.g., anchor lines, cables, rope) and removing it from the water immediately after use;
 - (15) conducting in-situ sound measurements of all sound-emitting construction equipment and all vessels involved in maintenance and repair activities;
 - (16) notifying the NMFS Office of Protected Resources, NMFS Northeast Ship Strike Coordinator, and Stellwagen Bank NMS 30 days prior to any planned port repair or maintenance activity or as soon as possible before any unplanned or emergency port repair or maintenance activities;
 - (17) maintaining an array of 19 marine autonomous recording units to (a) document the seasonal occurrence and overall distribution of whales within approximately 18.5 km (10 nmi) of the Port and (b) measure and document the sound “budget” of Massachusetts Bay;
 - (18) using 10 auto-detection buoys located within the Boston TSS to monitor vocalizations of North Atlantic right whales within approximately 9.3 km (5 nmi) of each buoy;
 - (19) reporting injured and dead marine mammals to NMFS and the local stranding network using NMFS’s phased approach and suspending activities, if appropriate; and
 - (20) submitting monthly monitoring reports, weekly status reports during repair and maintenance activities, and a final report to NMFS.

RATIONALE

The Commission understands that NMFS planned to issue regulations to govern the incidental taking of marine mammals during a five-year period after the previous authorization expired (i.e., after October 2012). Unfortunately, issuance of those regulations has been delayed because of regulatory constraints and other issues unrelated to the MMPA authorization process. To eliminate the need for annual incidental harassment authorizations, the Commission encourages NMFS to continue to work with Northeast Gateway and Algonquin to promulgate regulations to authorize the taking of marine mammals incidental to the proposed LNG activities.

Mr. P.M. Payne
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The Commission believes that the mitigation and monitoring measures are appropriate and prudent. The Commission also concurs with NMFS's preliminary finding and therefore recommends that NMFS issue the incidental harassment authorization, subject to inclusion of the proposed mitigation and monitoring measures.

The Commission appreciates the opportunity to provide comments on the application submitted on behalf of Northeast Gateway and Algonquin. Please contact me if you have questions concerning the Commission's recommendation.

Sincerely,

A handwritten signature in blue ink that reads "Rebecca J. Lent". The signature is written in a cursive style with a large initial "R".

Rebecca J. Lent, Ph.D.
Executive Director