



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

DEC 22 2015

Mr. Mike Trammel
Northeast Gateway Energy Bridge, L.P.
1450 Lake Robbins Drive, Suite 200
The Woodlands, Texas 77380

Dear Mr. Trammel:

Enclosed is an Incidental Harassment Authorization (IHA) issued to the Northeast Gateway Energy Bridge, L.P. under the authority of Section 101(a)(5)(D) of the Marine Mammal Protection Act (16 U.S.C. 1361 *et seq.*), to take by harassment small numbers of marine mammals incidental to operating and maintenance and repair a deepwater LNG facility and Pipeline Lateral in the Massachusetts Bay.

You are required to comply with the conditions contained in the IHA. In addition, you must cooperate with any Federal, state or local agency authorized to monitor the impacts of your activities. If you have any questions concerning the IHA or its requirements, please contact Shane Guan, Office of Protected Resources, NMFS, at (301) 427-8401.

Sincerely,

A handwritten signature in black ink that reads "Perry Gayardo".

for Donna S. Wieting, Director
Office of Protected Resources

Enclosure



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DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE

Incidental Harassment Authorization

Northeast Gateway® Energy Bridge™, L.P. (Northeast Gateway), 1450 Lake Robbins Drive, Suite 200, The Woodlands, Texas, 77380, and Algonquin Gas Transmission, L.L.C. (Algonquin), 890 Winter Street, Suite 300, Waltham, Massachusetts, 02451, are hereby authorized under section 101(a)(5)(D) of the Marine Mammal Protection Act (16 U.S.C. 1371(a)(5)(D)) to harass small numbers of marine mammals incidental to operation, maintenance, and repair of a liquefied natural gas (LNG) facility (Port and Pipeline Lateral) in the Massachusetts Bay, contingent upon the following conditions:

1. This Authorization is valid from December 23, 2015, through December 22, 2016.
2. This Authorization is valid only for activities associated with Northeast Gateway's LNG Port and Algonquin's Pipeline Lateral operations and maintenance and repair activities in the Massachusetts Bay. The specific area of the activities is shown in Figure 2-1 of the Excelerate Energy, L.P. and Tetra Tech, Inc.'s Incidental Harassment Authorization (IHA) application.
3. (a) The species authorized for incidental harassment takings, Level B harassment only, are:

North Atlantic right whales (*Eubalaena glacialis*);
Fin whales (*Balaenoptera physalus*);
Humpback whales (*Megaptera novaeangliae*);
Minke whales (*B. acutorostrata*);
Sei whales (*B. borealis*);
Long-finned pilot whales (*Globicephala melas*);
Atlantic white-sided dolphins (*Lagenorhynchus acutus*);
Bottlenose dolphins (*Tursiops truncatus*);
Short-beaked common dolphins (*Delphinus delphis*);
Risso's dolphin (*Grampus griseus*);
Killer whales (*Orcinus orca*);
Harbor porpoises (*Phocoena phocoena*);
Harbor seals (*Phoca vitulina*); and
Gray seals (*Halichoerus grypus*).



(b) The authorization is limited to taking by harassment from the following acoustic sources and from the following activities:

- (i) NEG Port operations;
- (ii) NEG Port maintenance and repair; and
- (iii) Algonquin Pipeline Lateral operations and maintenance.

(c) The taking of any marine mammal in a manner prohibited under this Authorization must be reported within 24 hours of the taking to the National Marine Fisheries Service (NMFS) Greater Atlantic Regional Administrator (978-281-9300) or his designee (978-282-8468), NMFS Headquarter Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, at (301-427-8401), or his designee (301-427-8418).

4 Prohibitions

(a) The taking, by incidental Level B harassment only, is limited to the species listed under condition 3(a) above and by the numbers listed in Table 1. The taking by Level A harassment, injury or death of these species or the taking by harassment, injury or death of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this Authorization.

(b) The taking of any marine mammal is prohibited whenever the required mitigation measures under (5) of this authorization are not implemented.

5 Mitigation

(a) General Marine Mammal Avoidance Measures

(i) All vessels shall utilize the International Maritime Organization (IMO)-approved Boston Traffic Separation Scheme (TSS) on their approach to and departure from the NEG Port and/or the repair/maintenance area at the earliest practicable point of transit in order to avoid the risk of whale strikes.

(ii) Upon entering the TSS and areas where North Atlantic right whales are known to occur, including the Great South Channel Seasonal Management Area (GSC-SMA) and the Stellwagen Bank National Marine Sanctuary (SBNMS), the Energy Bridge Regasification Vessels (EBRV™) shall go into “Heightened Awareness” as described below.

(A) Prior to entering and navigating the modified TSS the Master of the vessel shall:

(I) Consult Navigational Telex (NAVTEX), NOAA Weather Radio, the NOAA Right Whale Sighting Advisory System (SAS) or other means to obtain current right whale sighting information as well as

the most recent Cornell acoustic monitoring buoy data for the potential presence of marine mammals;

(II) Post a look-out to visually monitor for the presence of marine mammals;

(III) Provide the US Coast Guard (USCG) required 96-hour notification of an arriving EBRV to allow the NEG Port Manager to notify Cornell of vessel arrival.

(B) The look-out shall concentrate his/her observation efforts within the 2-mile radius zone of influence (ZOI) from the maneuvering EBRV.

(C) If marine mammal detection was reported by NAVTEX, NOAA Weather Radio, SAS and/or an acoustic monitoring buoy, the look-out shall concentrate visual monitoring efforts towards the areas of the most recent detection.

(D) If the look-out (or any other member of the crew) visually detects a marine mammal within the 2-mile radius ZOI of a maneuvering EBRV, he/she will take the following actions:

(I) The Officer-of-the-Watch shall be notified immediately; who shall then relay the sighting information to the Master of the vessel to ensure action(s) can be taken to avoid physical contact with marine mammals.

(II) The sighting shall be recorded in the sighting log by the designated look-out.

(iii) In accordance with 50 CFR 224.103(c), all vessels associated with NEG Port and Pipeline Lateral activities shall not approach closer than 500 yards (460 m) to a North Atlantic right whale and 100 yards (91 m) to other whales to the extent physically feasible given navigational constraints. In addition, when approaching and departing the project area, vessels shall be operated so as to remain at least 1 kilometer away from any visually-detected North Atlantic right whales.

(iv) In response to active right whale sightings and active acoustic detections, and taking into account exceptional circumstances, EBRVs, repair and maintenance vessels shall take appropriate actions to minimize the risk of striking whales. Specifically vessels shall:

(A) Respond to active right whale sightings and/or Dynamic Management Areas (DMAs) reported on the Mandatory Ship Reporting (MSR) or SAS by concentrating monitoring efforts towards the area of most recent detection and reducing speed to 10 knots or less if the vessel is within the boundaries

of a DMA or within the circular area centered on an area 8 nautical miles (nm) in radius from a sighting location;

(B) Respond to active acoustic detections by concentrating monitoring efforts towards the area of most recent detection and reducing speed to 10 knots or less within an area 5 nm in radius centered on the detecting auto-detection buoy (AB); and

(C) Respond to additional sightings made by the designated look-outs within a 2-mile radius of the vessel by slowing the vessel to 10 knots or less and concentrating monitoring efforts towards the area of most recent sighting.

(v) All vessels operated under NEG and Algonquin must follow the established specific speed restrictions when calling at the NEG Port. The specific speed restrictions required for all vessels (i.e., EBRVs and vessels associated with maintenance and repair) consist of the following:

(A) Vessels shall reduce their maximum transit speed while in the TSS from 12 knots or less to 10 knots or less from March 1 to April 30 in all waters bounded by straight lines connecting the following points in the order stated below unless an emergency situation dictates for an alternate speed. This area shall hereafter be referred to as the Off Race Point Seasonal Management Area (ORP-SMA) and tracks NMFS regulations at 50 CFR 224.105:

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

(B) Vessels shall reduce their maximum transit speed while in the TSS to 10 knots or less unless an emergency situation dictates for an alternate speed from April 1 to July 31 in all waters bounded by straight lines connecting the following points in the order stated below. This area shall hereafter be referred to as the GSC-SMA and tracks NMFS regulations at 50 CFR 224.105:

42°30' N 69°45' W	41°40' N 69°45' W
42°30' N 67°27' W	42°30' N 69°45' W
42°09' N 67°08.4' W	41°00' N 69°05' W

(C) Vessels are not expected to transit the Cape Cod Bay or the Cape Cod Canal; however, in the event that transit through the Cape Cod Bay or the Cape Cod Canal is required, vessels shall reduce maximum transit speed to 10 knots or less from January 1 to 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 and the Cape Cod Canal. This area shall hereafter be referred to as the Cape Cod Bay Seasonal Management Area (CCB-SMA).

(D) All Vessels transiting to and from the project area shall 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 shall report their activities to WHALESNORTH. Vessel operators shall contact the USCG by standard procedures promulgated through the Notice to Mariner system.

(E) All Vessels greater than or equal to 300 gross tons (GT) shall maintain a speed of 10 knots or less, unless an emergency situation requires speeds greater than 10 knots.

(F) All Vessels less than 300 GT traveling between the shore and the project area that are not generally restricted to 10 knots will contact the Mandatory Ship Reporting (MSR) system, the USCG, or the project site before leaving shore for reports of active DMAs and/or recent right whale sightings and, consistent with navigation safety, restrict speeds to 10 knots or less within 5 miles (8 kilometers) of any sighting location, when traveling in any of the seasonal management areas (SMAs) or when traveling in any active DMA.

(b) NEG Port-specific Operations

(i) In addition to the general marine mammal avoidance requirements identified in (5)(a) above, vessels calling on the NEG Port must comply with the following additional requirements:

(A) EBRVs shall travel at 10 knots maximum speed when transiting to/from the TSS or to/from the NEG Port/Pipeline Lateral area. For EBRVs, 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 NEG buoys, unless an emergency situation dictates the need for an alternate speed.

(B) EBRVs that are approaching or departing from the NEG Port and are within the Area to be Avoided (ATBA) surrounding the NEG Port, shall remain at least 1 km away from any visually-detected North Atlantic right whale and at least 100 yards (91 m) away from all other visually-detected whales unless an emergency situation requires that the vessel stay its course. During EBRV maneuvering, the Vessel Master shall designate at least one look-out to be exclusively and continuously monitoring for the presence of marine mammals at all times while the EBRV is approaching or departing from the NEG Port.

(C) During NEG Port operations, in the event that a whale is visually observed within 1 km of the NEG Port or a confirmed acoustic detection is

reported on either of the two ABs closest to the NEG Port (western-most in the TSS array), departing EBRVs shall delay their departure from the NEG Port, unless an emergency situation requires that departure is not delayed. This departure delay shall continue until either the observed whale has been visually (during daylight hours) confirmed as more than 1 km from the NEG Port or 30 minutes have passed without another confirmed detection either acoustically within the acoustic detection range of the two ABs closest to the NEG Port, or visually within 1 km from the NEG Port.

(ii) Vessel captains shall focus on reducing dynamic positioning (DP) thruster power to the maximum extent practicable, taking into account vessel and Port safety, during the operation activities. Vessel captains will shut down thrusters whenever they are not needed.

(c) Planned and Unplanned Maintenance and Repair Activities

(i) NEG Port

(A) The Northeast Gateway shall conduct empirical source level measurements on all noise emitting construction equipment and all vessels that are involved in maintenance/repair work.

(B) If DP systems are to be employed and/or activities will emit noise with a source level of 139 dB re 1 μ Pa at 1 m, activities shall be conducted in accordance with the requirements for DP systems listed in (5)(b)(ii).

(C) Northeast Gateway shall provide the NMFS Headquarters Office of the Protected Resources, NMFS Northeast Region Ship Strike Coordinator, and SBNMS with a minimum of 30 days notice prior to any planned repair and/or maintenance activity. For any unplanned/emergency repair/maintenance activity, Northeast Gateway shall notify the agencies as soon as it determines that repair work must be conducted. Northeast Gateway shall continue to keep the agencies apprised of repair work plans as further details (e.g., the time, location, and nature of the repair) become available. A final notification shall be provided to agencies 72 hours prior to crews being deployed into the field.

(ii) Pipeline Lateral

(A) Pipeline maintenance/repair vessels less than 300 GT traveling between the shore and the maintenance/repair area that are not generally restricted to 10 knots shall contact the MSR system, the USCG, or the project site before leaving shore for reports of active DMAs and/or recent right whale sightings and, consistent with navigation safety, restrict speeds to 10 knots or less within 5 miles (8 km) of any sighting location, when travelling in any of the seasonal management areas (SMAs) as defined above.

(B) Maintenance/repair vessels greater than 300 GT shall not exceed 10 knots, unless an emergency situation that requires speeds greater than 10 knots.

(C) Planned maintenance and repair activities shall be restricted to the period between May 1 and November 30.

(D) Unplanned/emergency maintenance and repair activities shall be conducted utilizing anchor-moored dive vessel whenever operationally possible.

(E) Algonquin shall also provide the NMFS Office of the Protected Resources, NMFS Northeast Region Ship Strike Coordinator, and SBNMS with a minimum of 30-day notice prior to any planned repair and/or maintenance activity. For any unplanned/emergency repair/maintenance activity, Northeast Gateway shall notify the agencies as soon as it determines that repair work must be conducted. Algonquin shall continue to keep the agencies apprised of repair work plans as further details (e.g., the time, location, and nature of the repair) become available. A final notification shall be provided to agencies 72 hours prior to crews being deployed into the field.

(F) If DP systems are to be employed and/or activities will emit noise with a source level of 139 dB re 1 μ Pa at 1 m, activities shall be conducted in accordance with the requirements for DP systems listed in (5)(b)(ii).

(G) In the event that a whale is visually observed within 0.5 mile (0.8 kilometers) of a repair or maintenance vessel, the vessel superintendent or on-deck supervisor shall be notified immediately. The vessel's crew shall be put on a heightened state of alert and the marine mammal shall be monitored constantly to determine if it is moving toward the repair or maintenance area.

(H) Repair/maintenance vessel(s) must cease any movement and/or cease all activities that emit noises with source level of 139 dB re 1 μ Pa @ 1 meter or higher when a right whale is sighted within or approaching at 500 yards (457 meters) from the vessel. Repair and maintenance work may resume after the marine mammal is positively reconfirmed outside the established zones (500 yards [457 meters]) or 30 minutes have passed without a redetection. Any vessels transiting the maintenance area, such as barges or tugs, must also maintain these separation distances.

(I) Repair/maintenance vessel(s) must cease any movement and/or cease all activities that emit noises with source level of 139 dB re 1 μ Pa @ 1 meter or higher when a marine mammal other than a right whale is sighted within or

approaching at 100 yards (91 meters) from the vessel. Repair and maintenance work may resume after the marine mammal is positively reconfirmed outside the established zones (100 yards [91 meters]) or 30 minutes have passed without a redetection. Any vessels transiting the maintenance area, such as barges or tugs, must also maintain these separation distances.

(J) Algonquin and associated contractors shall also comply with the following:

(I) Operations involving excessively noisy equipment (source level exceeding 139 dB re 1 μ Pa @ 1 meter) shall “ramp-up” sound sources, allowing whales a chance to leave the area before sounds reach maximum levels. In addition, Northeast Gateway, Algonquin, and other associated contractors shall maintain equipment to manufacturers’ specifications, including any sound-muffling devices or engine covers in order to minimize noise effects. Noisy construction equipment shall only be used as needed and equipment shall be turned off when not in operation.

(II) Any material that has the potential to entangle marine mammals (e.g., anchor lines, cables, rope or other construction debris) shall only be deployed as needed and measures shall be taken to minimize the chance of entanglement.

(III) For any material that has the potential to entangle marine mammals, such material shall be removed from the water immediately unless such action jeopardizes the safety of the vessel and crew as determined by the Captain of the vessel.

(IV) In the event that a marine mammal becomes entangled, the marine mammal coordinator and/or protected species observer (PSO) will notify NMFS (if outside the SBNMS), and SBNMS staff (if inside the SBNMS) immediately so that a rescue effort may be initiated.

(K) All maintenance/repair activities shall be scheduled to occur between May 1 and November 30; however, in the event of unplanned/emergency repair work that cannot be scheduled during the preferred May through November work window, the following additional measures shall be followed for Pipeline Lateral maintenance and repair related activities between December and April:

(I) Between December 1 and April 30, if on-board PSOs do not have at least 0.5-mile visibility, they shall call for a shutdown. At the time of shutdown, the use of thrusters must be minimized. If there are

potential safety problems due to the shutdown, the captain will decide what operations can safely be shut down.

(II) Prior to leaving the dock to begin transit, the barge shall contact one of the PSOs on watch to receive an update of sightings within the visual observation area. If the PSO has observed a North Atlantic right whale within 30 minutes of the transit start, the vessel shall hold for 30 minutes and again get a clearance to leave from the PSOs on board. PSOs shall assess whale activity and visual observation ability at the time of the transit request to clear the barge for release.

(III) Transit route, destination, sea conditions and any marine mammal sightings/mitigation actions during watch shall be recorded in the log book. Any whale sightings within 1,000 meters of the vessel shall result in a high alert and slow speed of 4 knots or less and a sighting within 750 meters shall result in idle speed and/or ceasing all movement.

(IV) The material barges and tugs used in repair and maintenance shall transit from the operations dock to the work sites during daylight hours when possible provided the safety of the vessels is not compromised. Should transit at night be required, the maximum speed of the tug shall be 5 knots.

(V) All repair vessels must maintain a speed of 10 knots or less during daylight hours. All vessels shall operate at 5 knots or less at all times within 5 km of the repair area.

(d) Acoustic Monitoring Related Activities

(i) Vessels associated with maintaining the AB network operating as part of the mitigation/monitoring protocols shall adhere to the following speed restrictions and marine mammal monitoring requirements.

(A) In accordance with 50 CFR 224.103 (c), all vessels associated with NEG Port activities shall not approach closer than 500 yards (460 meters) to a North Atlantic right whale.

(B) All vessels shall obtain the latest DMA or right whale sighting information via the NAVTEX, MSR, SAS, NOAA Weather Radio, or other available means prior to operations to

6 Monitoring

(a) Vessel-based visual monitoring

(i) Vessel-based monitoring for marine mammals shall be done by trained look-outs during NEG LNG Port and Pipeline Lateral operations and maintenance and repair activities. The observers shall monitor the occurrence of marine mammals near the vessels during LNG Port and Pipeline Lateral related activities. Lookout duties include watching for and identifying marine mammals; recording their numbers, distances, and reactions to the activities; and documenting “take by harassment”.

(ii) The vessel look-outs assigned to visually monitor for the presence of marine mammals shall be provided with the following:

(A) Recent NAVTEX, NOAA Weather Radio, SAS and/or acoustic monitoring buoy detection data;

(B) Binoculars to support observations;

(C) Marine mammal detection guide sheets; and

(D) Sighting log.

(b) NEG LNG Port Operations

(i) All individuals onboard the EBRVs responsible for the navigation duties and any other personnel that could be assigned to monitor for marine mammals shall receive training on marine mammal sighting/reporting and vessel strike avoidance measures.

(ii) While an EBRV is navigating within the designated TSS, there shall be three people with look-out duties on or near the bridge of the ship including the Master, the Officer-of-the-Watch and the Helmsman-on-watch. In addition to the standard watch procedures, while the EBRV is transiting within the designated TSS, maneuvering within the ATBA, and/or while actively engaging in the use of thrusters, an additional look-out shall be designated to exclusively and continuously monitor for marine mammals.

(iii) All sightings of marine mammals by the designated look-out, individuals posted to navigational look-out duties and/or any other crew member while the EBRV is transiting within the TSS, maneuvering within the ATBA and/or when actively engaging in the use of thrusters, shall be immediately reported to the Officer-of-the-Watch who shall then alert the Master. The Master or Officer-of-the-Watch shall ensure the required reporting procedures are followed and the designated marine mammal look-out records all pertinent information relevant to the sighting.

(iv) Visual sightings made by look-outs from the EBRVs shall be recorded using a standard sighting log form. Estimated locations shall be reported for each individual and/or group of individuals categorized by species when known. This data shall be entered into a database and a summary of monthly sighting activity shall be

provided to NMFS. Estimates of take and copies of these log sheets shall also be included in the reports to NMFS.

(c) Planned and Unplanned Maintenance and Repair

(i) Two (2) qualified and NMFS-approved PSOs shall be assigned to each vessel that will use DP systems during maintenance and repair related activities. PSOs shall operate individually in designated shifts to accommodate adequate rest schedules. Additional PSOs shall be assigned to additional vessels if AB data indicates that sound levels exceed 120 dB re 1 μ Pa, further then 100 meters (328 feet) from these vessels.

(ii) All PSOs shall receive NMFS-approved marine mammal observer training and be approved in advance by NMFS after review of their resume. All PSOs shall have direct field experience on marine mammal vessels and/or aerial surveys in the Atlantic Ocean/Gulf of Mexico.

(iii) PSOs (one primary and one secondary) shall be responsible for visually locating marine mammals at the ocean's surface and, to the extent possible, identifying the species. The primary PSO shall act as the identification specialist and the secondary PSO will serve as data recorder and also assist with identification. Both PSOs shall have responsibility for monitoring for the presence of marine mammals and sea turtles. Specifically PSO's shall:

(A) Monitor at all hours of the day, scanning the ocean surface by eye for a minimum of 40 minutes every hour.

(B) Monitor the area where maintenance and repair work is conducted beginning at daybreak using 25x power binoculars and/or hand-held binoculars. Night vision devices must be provided as standard equipment for monitoring during low-light hours and at night.

(C) Conduct general 360° visual monitoring during any given watch period and target scanning by the observer shall occur when alerted of a whale presence.

(D) Alert the vessel superintendent or construction crew supervisor of visual detections within 2 miles (3.31 kilometers) immediately.

(E) Record all sightings on marine mammal field sighting logs. Specifically, all data shall be entered at the time of observation, notes of activities will be kept, and a daily report prepared and attached to the daily field sighting log form. The basic reporting requirements include the following:

- Beaufort sea state;

- Wind speed;
- Wind direction;
- Temperature;
- Precipitation;
- Glare;
- Percent cloud cover;
- Number of animals;
- Species;
- Position;
- Distance;
- Behavior;
- Direction of movement; and
- Apparent reaction to construction activity.

(iv) In the event that a whale is visually observed within the 2-mile (3.31-kilometers) zone of influence (ZOI) of a DP vessel or other construction vessel that has shown to emit noise with source level in excess of 139 dB re 1 μ Pa @ 1 m, the PSO will notify the repair/maintenance construction crew to minimize the use of thrusters until the animal has moved away, unless there are divers in the water or an ROV is deployed.

(d) Acoustic Monitoring

- (i) Northeast Gateway shall deploy 10 ABs within the Separation Zone of the TSS for the operational life of the Project.
- (ii) The ABs shall be used to detect a calling North Atlantic right whale an average of 5 nm from each AB. The AB system shall be the primary detection mechanism that alerts the EBRV Master to the occurrence of right whales, heightens EBRV awareness, and triggers necessary mitigation actions as described in section (5) above.
- (iii) Northeast Gateway shall conduct short-term passive acoustic monitoring to document sound levels during
 - (A) the initial operational events in the 2014-2015 winter heating season;
 - (B) regular deliveries outside the winter heating season should such deliveries occur; and
 - (C) scheduled and unscheduled maintenance and repair activities.
- (iv) Northeast Gateway shall conduct long-term monitoring of the noise environment in Massachusetts Bay in the vicinity of the NEG Port and Pipeline Lateral using marine autonomous recording units (MARUs) when

there is anticipated to be more than 5 LNG shipments in a 30-day period or over 20 shipments in a six-month period.

- (v) The acoustic data collected in 6(d)(ii) shall be analyzed to document the seasonal occurrences and overall distributions of whales (primarily fin, humpback and right whales) within approximately 10 nm of the NEG Port and shall measure and document the noise “budget” of Massachusetts Bay so as to eventually assist in determining whether or not an overall increase in noise in the Bay associated with the Project might be having a potentially negative impact on marine mammals.
 - (vi) Northeast Gateway shall make all acoustic data, including data previously collected by the MARUs during prior construction, operations, and maintenance and repair activities, available to NOAA. Data storage will be the responsibility of NOAA.
- (e) Acoustic Whale Detection and Response Plan
- (i) NEG Port Operations
 - (A) Ten (10) ABs that have been deployed since 2007 shall be used to continuously screen the low-frequency acoustic environment (less than 1,000 Hertz) for right whale contact calls occurring within an approximately 5-nm radius from each buoy (the AB’s detection range).
 - (B) Once a confirmed detection is made, the Master of any EBRVs operating in the area will be alerted immediately.
 - (ii) NEG Port and Pipeline Lateral Planned and Unplanned/Emergency Repair and Maintenance Activities
 - (A) If the repair/maintenance work is located outside of the detectible range of the 10 project area ABs, Northeast Gateway and Algonquin shall consult with NOAA (NMFS and SBNMS) to determine if the work to be conducted warrants the temporary installation of an additional AB(s) to help detect and provide early warnings for potential occurrence of right whales in the vicinity of the repair area.
 - (B) The number of ABs installed around the activity site shall be commensurate with the type and spatial extent of maintenance/repair work required, but must be sufficient to detect vocalizing right whales within the 120-dB impact zone.
 - (C) Should acoustic monitoring be deemed necessary during a planned or unplanned/emergency repair and/or maintenance event, active monitoring for right whale calls shall begin 24 hours prior to the start of activities.

(D) Source level data from the acoustic recording units deployed in the NEG Port and/or Pipeline Lateral maintenance and repair area shall be provided to NMFS.

7 Reporting

(a) Throughout NEG Port and Pipeline Lateral operations, Northeast Gateway and Algonquin shall provide a monthly Monitoring Report. The Monitoring Report shall include:

(i) Both copies of the raw visual EBRV lookout sighting information of marine mammals that occurred within 2 miles of the EBRV while the vessel transits within the TSS, maneuvers within the ATBA, and/or when actively engaging in the use of thrusters, and a summary of the data collected by the look-outs over each reporting period.

(ii) Copies of the raw PSO sightings information on marine mammals gathered during pipeline repair or maintenance activities. This visual sighting data shall then be correlated to periods of thruster activity to provide estimates of marine mammal takes (per species/species class) that took place during each reporting period.

(iii) Conclusion of any planned or unplanned/emergency repair and/or maintenance period, a report shall be submitted to NMFS summarizing the repair/maintenance activities, marine mammal sightings (both visual and acoustic), empirical source-level measurements taken during the repair work, and any mitigation measures taken.

(b) During the maintenance and repair of NEG Port and Pipeline Lateral components, weekly status reports shall be provided to NOAA (both NMFS and SBNMS) using standardized reporting forms. The weekly reports shall include data collected for each distinct marine mammal species observed in the repair/maintenance area during the period that maintenance and repair activities were taking place. The weekly reports shall include the following information:

(i) Location (in longitude and latitude coordinates), time, and the nature of the maintenance and repair activities;

(ii) Indication of whether a DP system was operated, and if so, the number of thrusters being used and the time and duration of DP operation;

(iii) Marine mammals observed in the area (number, species, age group, and initial behavior);

(iv) The distance of observed marine mammals from the maintenance and repair activities;

- (v) Changes, if any, in marine mammal behaviors during the observation;
 - (vi) A description of any mitigation measures (power-down, shutdown, etc.) implemented;
 - (vii) Weather condition (Beaufort sea state, wind speed, wind direction, ambient temperature, precipitation, and percent cloud cover etc.);
 - (viii) Condition of the observation (visibility and glare); and
 - (ix) Details of passive acoustic detections and any action taken in response to those detections.
- (d) Injured/Dead Protected Species Reporting
- (i) In the unanticipated event that survey operations clearly cause the take of a marine mammal in a manner prohibited by the proposed IHA, such as an injury (Level A harassment), serious injury or mortality (e.g., ship-strike, gear interaction, and/or entanglement), NEG and/or Algonquin shall immediately cease activities and immediately report the incident to the Supervisor of the Incidental Take Program, Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401 and/or by email to Jolie.Harrison@noaa.gov and Shane.Guan@noaa.gov and the Greater Atlantic Regional Stranding Coordinators (Mendy.Garron@noaa.gov or Lanni.Hall@noaa.gov) or by phone at 978-281-9300. The report must include the following information:
 - (A) time, date, and location (latitude/longitude) of the incident;
 - (B) the name and type of vessel involved;
 - (C) the vessel's speed during and leading up to the incident;
 - (D) description of the incident;
 - (E) status of all sound source use in the 24 hours preceding the incident;
 - (F) water depth;
 - (G) environmental conditions (e.g., wind speed and direction, Beaufort sea state, cloud cover, and visibility);
 - (H) description of marine mammal observations in the 24 hours preceding the incident;
 - (I) species identification or description of the animal(s) involved;
 - (J) the fate of the animal(s); and
 - (K) photographs or video footage of the animal (if equipment is available).

Activities shall not resume until NMFS is able to review the circumstances of the prohibited take. NMFS shall work with NEG and/or Algonquin to determine what is necessary to minimize the likelihood of further prohibited take and ensure Marine Mammal Protection Act (MMPA) compliance. NEG and/or Algonquin may not resume their activities until notified by NMFS via letter, email, or telephone.

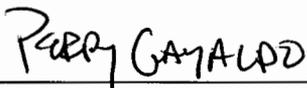
(ii) In the event that NEG and/or Algonquin discovers an injured or dead marine mammal, and the lead PSO determines that the cause of the injury or death is unknown and the death is relatively recent (i.e., in less than a moderate state of decomposition as described in the next paragraph), NEG and/or Algonquin will immediately report the incident to the Supervisor of the Incidental Take Program, Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401, and/or by email to Jolie.Harrison@noaa.gov and Shane.Guan@noaa.gov and the NMFS Northeast Stranding Coordinators (Mendy.Garron@noaa.gov or Lanni.Hall@noaa.gov) or by phone at 978-281-9300, within 24 hours of the discovery. The report must include the same information identified above. Activities may continue while NMFS reviews the circumstances of the incident. NMFS will work with NEG and/or Algonquin to determine whether modifications in the activities are appropriate.

(iii) In the event that NEG or Algonquin discovers an injured or dead marine mammal, and the lead PSO determines that the injury or death is not associated with or related to the activities authorized (if the IHA is issued) (e.g., previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), NEG and/or Algonquin shall report the incident to the Supervisor of the Incidental Take Program, Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401, and/or by email to Jolie.Harrison@noaa.gov and Shane.Guan@noaa.gov and the NMFS Northeast Stranding Coordinators (Mendy.Garron@noaa.gov or Lanni.Hall@noaa.gov) or by phone at 978-281-9300, within 24 hours of the discovery. NEG and/or Algonquin shall provide photographs or video footage (if available) or other documentation of the stranded animal sighting to NMFS and the Marine Mammal Stranding Network. NEG and/or Algonquin can continue its operations under such a case.

8. A copy of this Authorization must be in the possession of each observer or group operating under the authority of this Incidental Harassment Authorization.

9. Penalties and Permit Sanctions

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



Donna S. Wieting
Director
Office of Protected Resources
National Marine Fisheries Service

DEC 22 2015
Date

Table 1. Species/stocks and numbers of marine mammals allowed to be taken incidental to under this IHA.

Species	Population/stock	Number of takes
North Atlantic right whale	Western Atlantic	29
Humpback whale	Gulf of Maine	42
Fin whale	Western North Atlantic	35
Sei whale	Nova Scotia	30
Minke whale	Canadian East Coast	21
Long-finned pilot whale	Western North Atlantic	145
Atlantic white-sided dolphin	Western North Atlantic	469
Bottlenose dolphin	Western North Atlantic Southern Migratory	20
Short-beaked common dolphin	Western North Atlantic	40
Risso's dolphin	Western North Atlantic	40
Killer whale	Western North Atlantic	10
Harbor porpoise	Gulf of Maine/Bay of Fundy	20
Harbor seal	Western North Atlantic	60
Gray seal	Western North Atlantic	30