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May 16, 2005

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORMS

PROJECT NAME	: Northeast Gateway Energy Bridge Deepwater Port Project/Northeast Gateway Pipeline Lateral
PROJECT MUNICIPALITY	: N/A
PROJECT WATERSHED	: N/A
EOEA NUMBER	: 13473/13474
PROJECT PROPONENT	: Northeast Gateway Energy Bridge, LLC/ Algonquin Gas Transmission, LLC
DATE NOTICED IN MONITOR	: March 23, 2005

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62H) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **requires** the preparation of a mandatory Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Forms (ENFs), the proposed project entails the construction of a Deepwater Port (DWP) in Massachusetts Bay, consisting of a submerged buoy system to dock Liquified Natural Gas (LNG) carriers approximately 13 miles offshore in federal waters 250-270 feet in depth, and a 16.4-mile long, 24-inch diameter Pipeline Lateral to interconnect the DWP to the existing offshore pipeline system, the HubLine,

located in Massachusetts Bay. The Pipeline Lateral will enable the delivery of regasified LNG from the DWP to onshore markets in New England. Approximately 12.5 miles of the Pipeline Lateral is proposed in Commonwealth waters and 3.9 miles in federal waters. The DWP will be owned and operated by Northeast Gateway Energy Bridge, LLC, and the Pipeline Lateral will be owned and operated by Algonquin Gas Transmission, LLC.

Purpose of MEPA Review

As discussed below, I am requiring a thorough and regionally comprehensive analysis to determine if there are alternatives to the proposed project that can provide natural gas to local and regional markets while avoiding impacts to important fishing grounds and the fisheries and communities they sustain.

The Northeast Gateway project is one of several major infrastructure developments proposed in the region to meet growing demand for energy, and particularly natural gas, in Massachusetts and New England. In characterizing the current energy situation, the state Division of Energy Resources cites a conclusion of the recent New England Governors report that "if the New England region wants to ensure reliable delivery of natural gas in the winters beyond 2010, the region must accomplish a substantial amount of demand reduction or infrastructure development before that time." I recognize the potentially significant contribution this project could make to meet our energy needs, and I applaud the proponents for proposing an approach to gas delivery that leverages existing infrastructure, seeks to minimize the area of environmental impact, and is sensitive to concerns about public safety. I also appreciate the proponents' significant pre-filing coordination with the agencies and the public that has provided valuable information and an opportunity to better understand the project's potential benefits and impacts.

Nevertheless, I am mindful that each of the several proposed projects in the region has the potential to address some measure of demand for natural gas and may have less impact individually and cumulatively to the resources and uses of the marine environment in which the Northeast Gateway project is currently proposed. I have received and acknowledge the numerous comments

regarding the productivity and economic significance of the fishing grounds, characterized as Block 125, that would be affected by this project, including comments from the City of Gloucester, New England Fisheries Management Council, National Marine Fisheries Service, Division of Marine Fisheries, and numerous fishing groups and individuals. In addition, I note that the project's proposed location is immediately adjacent Stellwagen National Marine Sanctuary and a state-designated Ocean Sanctuary, both areas designated to preserve and protect the marine ecology of Massachusetts Bay.

I believe that the challenge posed by this project, of determining how best to meet our energy needs while protecting marine resource and uses, speaks directly to emerging state and federal ocean management principles. The fact that another project has proposed to locate a similar delivery, regasification, and transshipment facility in the same general area as the Northeast Gateway project demonstrates the need for a better way to make decisions regarding when and where development in our ocean waters should be permitted. Lastly, I note that both the Governor and Coastal Zone Management, under the Deepwater Port Act and the Coastal Zone Management Act, respectively, have jurisdiction over all components of the project, including those in federal waters, and both have indicated in comments to me that they will use the MEPA process as a basis for their formal decisions. Therefore, the project presents a significant opportunity to advance the state's emerging ocean management objectives of preserving and protecting our marine resources, supporting and enhancing traditional sustainable uses, and limiting the impact of necessary development. I encourage the proponent to develop materials responsive to the following Scope with these goals in mind.

MEPA Jurisdiction and Permitting Requirements

Although the project proponents submitted two separate ENFs, the projects are interdependent and, thus, will be reviewed jointly under MEPA. The project is undergoing review pursuant to the following sections of the MEPA regulations:

- 11.03(3)(a)(1)(b) Alteration of ten or more acres of any other wetlands, in this case Land Under the Ocean; and

- 11.03(7)(a)(3) Construction of a new fuel pipeline more than 10 miles in length.

The project will require numerous state and federal permits. At the federal level, the project will require approvals by the U.S. Coast Guard (USCG), U.S. Department of Transportation (USDOT), the Federal Energy Regulatory Commission (FERC), the U.S. Army Corps of Engineers (USACE), and the U.S. Environmental Protection Agency (EPA). The project will also require consultation by several other federal agencies with resource management responsibilities. The project is undergoing review pursuant to the National Environmental Policy Act (NEPA), with USCG as the lead federal agency.

At the state level, the project will require approval from the Governor for the DWP, and a Chapter 91 License and a 401 Water Quality Certification from the Department of Environmental Protection (DEP). The project will require federal consistency review by the Office of Coastal Zone Management (CZM). The project will also require Orders of Conditions from local Conservation Commissions (and hence, Superseding Orders of Conditions from DEP if the local orders are appealed). The project will also require consultation by several other federal agencies with resource management responsibilities.

Because the proponent is not seeking financial assistance from the Commonwealth for the project, MEPA jurisdiction extends to those aspects of the project that have the potential to cause significant Damage to the Environment as defined in the MEPA statute and that are within the subject matter of required or potentially required state permits and approvals. In this case, given the large number of state permits required and the comprehensive subject matter of the required state permits, MEPA jurisdiction is equivalent to full scope jurisdiction.

I have received many comments raising concerns with the proposed development, including several letters expressing strong opposition to the project as proposed. I wish to remind commenters that under MEPA, I do not have the authority to approve or deny the project. Review under MEPA is not a permitting process. Rather, it is a process designed to ensure public participation in the environmental review processes

conducted by state agencies with permitting authority over the project, to ensure that state permitting agencies have adequate information on which to base their permit decisions and their Section 61 Findings, and to ensure that the potential environmental impacts of the projects are described fully and avoided, minimized, and mitigated to the maximum feasible extent.

Special Review Procedure

The proponents have requested that a Special Review Procedure (SRP) be established to coordinate federal and state review of the projects under NEPA and MEPA. A separate Certificate Establishing a SRP describes the process by which the NEPA and MEPA reviews will be coordinated.

SCOPE

General

As noted previously, I have established a Special Review Procedure for the MEPA review of this project to facilitate coordination among state and federal agencies and to maximize opportunities for public participation in the review of this complex project. The Special Review Procedure lays out the general requirements for outline and content of the EIR. Because of the coordinated federal and state review, I have allowed the proponent to vary the format from the usual EIR format contained in Section 11.07 of the MEPA regulations.

The DEIR should follow the general guidance for outline and content contained in Section 11.07 of the MEPA regulations, as modified by this Certificate. The DEIR should be circulated in compliance with Section 11.16 of the MEPA regulations and copies should be sent to those parties that submitted comments on the ENF, and to any additional state agencies from which the proponent will be seeking permits and approvals.

The proposed project does not trigger requirements for enhanced notification and outreach pursuant to the Executive Office of Environmental Affairs (EOEA) Environmental Justice Policy. Nevertheless, I strongly encourage the proponent to

engage in significant public outreach efforts in coastal communities in which fishing is a major component of the local economy. The DEIR should include a summary of any community meetings sponsored by the proponent and copies of the DEIR should be made available for public review at local public libraries.

The ENFs contain preliminary information regarding potential impacts of the proposed project. In general, the DEIR should provide detailed discussion and analysis of the issues below, including any measures necessary to minimize or mitigate the project's impacts. Several of these issues require the production of maps, tables, or other visual presentations. Mapping should be based on NOAA charts or other appropriate base maps at suitable scales. I ask that the proponent consult with CZM in developing the scale and format of graphic data products presented in the DEIR.

Project Description and Permitting

The Draft EIR should include a thorough description of the project and all project elements and construction phases. The DEIR should briefly describe each state and local permit required for the project, and should demonstrate that the project meets any applicable performance standards.

Alternatives Analysis

Overall Project

A critical purpose of the DEIR is to provide the necessary context for evaluating the proposed project, particularly in comparison to other means of accomplishing its objectives. For this reason, the DEIR must assess the broad-scale and project-specific alternatives discussed below. The evaluation of each alternative should include a discussion of its ability to meet reasonably foreseeable energy demand in the context of existing and planned energy infrastructure. For each alternative, the DEIR should clearly describe the rationale for carrying forward individual alternatives, from the standpoint of: the ability to meet the purpose and need; environmental issues; conflicting uses; and public safety issues.

The DWP ENF presents a preliminary discussion of the alternatives that the proponent has examined to date. Reflecting the regional nature of energy supply and demand, the DEIR should include an alternatives analysis that recognizes long-term regional energy needs (including the need for natural gas versus other forms of energy), forecasted energy growth, and existing and planned energy infrastructure. In addition to the preferred alternative, the analysis should include:

- the no-build alternative;
- additional renewable and non-renewable sources of energy;
- energy conservation; and
- other means of supplying natural gas to Massachusetts and New England, including on-shore and offshore terminals and pipelines, and a comparison of the proposed methods to construct other alternatives.

This information should be presented in a format that allows for a comparison of impacts across alternatives.

The siting criteria for the project should consider the comments of NOAA's National Marine Fisheries Service and include proximity to historic fishing grounds and critical habitats for protected resources or essential fish habitat in the siting criteria, based on the results of sediment, benthic and icthyoplankton sampling to be conducted by the proponents. This section should also thoroughly address the concerns expressed by many commenters, including most notably the City of Gloucester, the Metropolitan Area Planning Council, and the Conservation Law Foundation.

Deepwater Port

In addition to the alternative analysis described above, the DEIR should provide a detailed analysis of alternative sites and technologies related to the DWP and pipeline. The goal of this analysis should be to consider alternate port locations, pipeline routes, and points of connection to the existing gas distribution system (not limited to the Hubline) that may have significant potential to reduce environmental and use impacts as compared to the preferred alternative, while still being reasonably capable of development in technical and economic terms. This analysis should also consider different technologies (including associated

accessory structures) that could be incorporated into a DWP. Recognizing that a second, similar project has been proposed under NEPA in the same general location, the analysis should consider the impacts of locating two DWPs in that area.

The DWP ENF describes six criteria that the proponent used to identify an offshore terminal site. In the framework of the alternatives analysis, the DEIR should provide further information and clarification on these criteria, and how these criteria were applied in identifying an offshore site, in accordance with comments submitted by CZM. This discussion should also identify potential site locations that would result from changes in these criteria.

Pipeline Lateral

The Pipeline Lateral ENF appears to draw a general conclusion that soft bottom substrates are preferable to hard or cobbly substrates. It also appears that, for the example of the pipeline connection to the proposed location of the DWP, there is a more direct (i.e. shorter linear distance, and subsequent decreased impact footprint) alternative that, according to the ENF, crosses rockier substrate. The DEIR should analyze alternative pipeline routes in consideration of the following:

- the route that minimizes the total area of seafloor disturbance;
- hard vs. soft bottom impacts, including habitat and ease-of-construction considerations;
- habitat alteration (e.g., through the introduction of cobble habitat as a result of rip-rap placement to ensure a covered pipeline in current softer substrates); and
- other lessons learned or considerations related to the Hubline project.

This discussion of alternatives for the pipeline connection should also evaluate alternate pipeline sizes and their potential to accommodate future additional capacity.

The overall alternatives analysis as described above will provide critical information during the public review process to evaluate alternative methods of achieving the project purpose and need. Because of the importance of this information, CZM

recommends that the results of the alternatives analysis, including a clear description of its methodology and decision-making, be published for public review prior to the submittal of the DEIR, as allowed under the SRP. Similar comments by the City of Gloucester and the Conservation Law Foundation ask that I require a regional siting study as context for the review of this project. I agree that such an approach would reflect emerging principles of ocean management that advocate regional contexts for management decisions, but it is beyond my authority to impose such a requirement. However, I reserve the right, pursuant to the SRP, to require additional review and analysis of alternatives if the alternatives analysis presented in the DEIR is deemed inadequate.

Marine Habitat and Fisheries

The DEIR should characterize fisheries resources through an appropriate level of directed study of habitat characteristics, fish resources and an analysis of existing uses. To ensure a comprehensive review of these impacts, it will likely be necessary to supplement existing sources of data, such as the Division of Marine Fisheries (DMF) Resource Assessment Survey and commercial landings database with new directed field studies or surveys. Such efforts must be scientifically sound and of sufficient duration to accurately characterize habitat, fisheries resources, and uses. To facilitate the review and permitting of this project, I ask that the state agencies coordinate in the development of a study plan to assist the proponents in determining the extent of resource analysis necessary to characterize potentially affected resources and evaluate potential impacts under the controlling regulations.

The DEIR should include sediment mapping based on project-specific data collected and USGS mapping. The DEIR should fully describe all survey results, including sidescan sonar, sub-bottom profile, multibeam bathymetry, grab samples, sediment profile imagery, and other data collection efforts. The DEIR should identify bottom areas determined to be unsuitable for pipeline burial and discuss the rationale for determining unsuitability. The proponent should provide survey results to state and federal resource agencies in electronic and hard copy formats compatible with state data systems.

Benthic Impacts

As described in the ENFs, marine habitat impacts include those associated with construction activities. The Pipeline Lateral ENF states that while the preferred alternative pipeline route is the longest (approximately 16.4 miles in length), it "traverses relatively uniform substrate/habitat conditions, and would entail the simplest, least sediment disturbing construction methods". The DEIR should provide additional clarification of this assertion, particularly because the ENF appears to assume that soft-bottom impacts are preferable to hard-bottom impacts. The DEIR should describe benthic resources (invertebrates, lobster, fishes, crabs, shellfish, and other resources) in the pipeline corridor and DWP construction footprints, and describe the method of acquiring this information, including the locations of any sampling points. The DEIR should include estimates of spatial habitat impacts, including areas in the pipeline corridor, anchor and anchor line scour, lay barge and line-up stations, and other activities or infrastructure that could affect benthic resources. The DEIR should also describe plans to avoid, minimize, and mitigate for these impacts as necessary.

The Pipeline Lateral ENF states that in "limited areas, primarily at the crossing of the Hibernia communications cable and at any sites not feasible to plow due to unforeseen subsurface geologic conditions, the pipeline will be laid on the surface and armored with rock". The DEIR should describe and quantify these areas and discuss the impacts to existing benthic fauna and flora that could occur as a result of changing from a soft surface to a harder surface as a result of armoring. After fully exploring options to minimize the footprint of habitat impacts, the DEIR should include a mitigation plan for unavoidable habitat impacts.

Seawater Intakes and Discharges

The proposed project would involve the use of 54 million gallons per day (mgd) of seawater for ship processes, as well as an additional 13.75 mg of seawater every seven days for ballast water. The intake and discharge of seawater has the potential to impact fish, plankton, and the organisms that depend upon plankton as a source of nourishment that reside in or frequent Commonwealth waters.

The ENF states that the entrapment of some fish and planktonic organisms will be unavoidable as the water is pumped in for use on board the LNG vessels, but that the intake system has been designed to minimize intake velocity and would be located at a sufficient depth to prevent the entrainment of lobster larvae. Although the DWP would be located in federal waters, the potential source impacts are not limited by jurisdictional boundaries. The DEIR should address the scope and extent of these potential impacts, based on scientific data such as sampling of waters in the area, to determine the potential for entrainment. This analysis should present the results of ichthyoplankton sampling, and information regarding seawater intake volumes, velocities, and proposed intake screen sizes. The DEIR should propose a biological monitoring plan in accordance with NMFS recommendations. The DEIR should also propose measures to avoid and/or minimize impacts (including time-of-year restrictions and project sequencing), and discuss feasible compensatory mitigation measures for potential impacts in Commonwealth waters that cannot be avoided.

Given the project's proposed location within important fisheries habitat, I strongly urge the proponent to consider constructing and operating the project only within the framework of a closed-cycle system, which would not require water withdrawal from Massachusetts Bay. However, the DEIR should describe the physical conditions in which an open-loop system could be used for this project.

Fisheries Resources

The proponent should coordinate with state and federal fisheries agencies to develop a work schedule that will ensure the protection of species of concern during sensitive life-stages. Prior to commencing work, the proponent should obtain documentation from the (DMF) regarding the presence or absence of mapped shellfish beds in the proposed project corridor. The DEIR should fully analyze the cumulative impacts to the marine environment resulting from the project. This analysis should be species-specific and include an extrapolation of impacts to fishery production and harvest. Existing commercial and recreational activities (including fishing, whale watching, disposal of dredged material, and commercial ship traffic) and the impacts they cause should be described along with a

characterization of the activities that can be expected, including the potential for the proposed buoy system to handle larger vessels.

In its comments, DEP indicates that it will include time-of-year restrictions on in-water construction activities in its 401 Water Quality Certification for the project. Conservative construction planning, realistic expectations of weather delays, and specific contingency plans to address schedule slippage should be key elements of the project schedule to avoid incursions into the specified no-work periods. The DEIR should present a schedule of proposed activities with specific contingencies for suspending or ceasing operations, including decommissioning, if it becomes impossible to complete work within the schedule and time-of-year restrictions to avoid unauthorized impacts.

This section should thoroughly address the concerns expressed by many commenters, including most notably DMF, NOAA's National Marine Fisheries Service (NMFS) and the New England Fishery Management Council. In its comments, NMFS indicated that an expanded Essential Fish Habitat (EFH) assessment will be required for the project under federal NEPA review.

Conflicting Uses

The project has the potential to significantly affect existing commercial fishing activity in Block 125, a highly productive fishing area. The ENF recognizes the potential disruption to recreational and commercial fishing, boating, and navigation during the pipeline laying process, and the proponent is consulting with fisherman, lobsterman as well as state and federal agencies with jurisdiction over affected areas in selecting the pipeline pathway and mitigating construction and operational impacts.

The DEIR should include a full discussion of the potential for this project to conflict with existing and proposed uses in the project area, both on a temporary and permanent basis, and assess the economic value of commercial and recreational fishery losses anticipated as a result of the project. Existing uses that should be analyzed include commercial and recreational fishing, whale watching and other tourist boating activities, disposal

activities at the Massachusetts Bay Disposal Site, and the shipping lanes, including potential results of any proposed shift in the shipping lanes. This discussion should also include details of any proposed safety exclusion zone around the DWP, including a rationalization for any increase in its size above the regulatory minimum size as an exclusion zone would effectively privatize currently public lands. This discussion should also include an assessment of the current commercial fishing effort in the project area, based on gear types used and target species.

This section should thoroughly address the concerns expressed by many commenters, including most notably the City of Gloucester, the Northeast Seafood Coalition, the Gloucester Fishermen Association, the Gloucester Fishermen's Wives Association, and the Massachusetts Lobstermen's Association.

Marine Mammals

The proposed project site is located immediately adjacent to the Stellwagen Bank National Marine Sanctuary. The construction and operational phases of the DWP, as well as the transit frequency of large vessels into Massachusetts Bay may potentially increase the chances that ships may strike whales, particularly right whales, and other marine mammals which congregate in Cape Cod Bay and the Great South Channel in late winter and spring. The DEIR should discuss this issue and propose a monitoring plan, perhaps building upon scientific information or sound data collected as part of the operation of other existing DWPs in the Gulf of Mexico or similar facilities. The DEIR should also discuss the potential for other impacts on whales and marine mammals, including noise generated by the LNG ships and the potential risk to smaller marine mammals from the vessels' intake mechanisms.

The ENF describes the proposed use of mid-line buoys on anchor cables from the construction vessels to reduce scouring of the bottom by the anchor lines. The DEIR should provide sufficient information on the proposed use of mid-line buoys to demonstrate that they will not pose an entanglement risk to marine mammals.

Ocean Sanctuaries

As described in the Pipeline Lateral ENF, each of the three alternative pipeline routes providing the connection between the DWP and the Hubline would pass through a State-designated Ocean Sanctuary, such as the North Shore and South Essex Ocean Sanctuaries. For each alternative, the DEIR should describe and quantify the pipeline length and footprint passing through any Ocean Sanctuary. The DEIR should also identify any issues of conformance to the regulations of the Ocean Sanctuaries Act.

Water Quality

As described in the ENFs, the proposed project includes construction of a pipeline and installation of bottom anchors. The pipeline and flowline connecting the DWP to the Pipeline Lateral are proposed to be constructed using a plow (and a jetting tool in certain places where the plow does not successfully remove sediment) and bottom-anchored barges. The buoys securing the gas transmission risers will be moored to the seafloor using a series of suction anchors and a combination of chains and cable anchor lines. When a buoy is not in use, its neutral buoyancy will be achieved at 100 feet below the water surface. In this position, the slack in the anchor chains and a portion of the cables will allow sweeping of the seafloor. Temporary construction-related impacts to the seafloor are estimated to be about 43 acres. Once the DWP is in operation, impacts to the seafloor will range from five to 43 acres depending on whether or not a vessel is on buoy.

The proposed location for the DWP is adjacent to the Massachusetts Bay Disposal Site (MBDS) and somewhat further from the area identified as the Industrial Waste Site. Although the DWP is located outside the boundaries of these areas, it is possible that significantly contaminated sediment or industrial wastes have been disposed of outside of the disposal area boundaries or been transported to the DWP site. The ENF asserts that there are no known or potential sources of contaminants along the pipeline route and that sediments are therefore unlikely to be contaminated. The DEIR should demonstrate that there are no known or potential sources of contaminants along the pipeline route and provide reasonable assurance that the project, as proposed, will not result in a violation of applicable water quality standards (314 CMR 9.00).

The DEIR should present sediment quality data from the proposed location of the DWP and the Pipeline Lateral and discuss the potential for adverse impacts from construction activities (including pipeline/manifold installation and/or anchor deployment or removal) and scour associated with anchor chain drag to cause suspension of waste and/or contaminated sediment to be released into the water column and transported away from the site. Where impacts to Commonwealth waters cannot be avoided, feasible mitigation measures should be described. For the installation of the pipeline, the DEIR should describe modeling results for potential sediment concentrations under various scenarios, ranging from high sediment concentration/low dilution to lower sediment concentration/greater dilution, and include a discussion of compliance with water quality standards. The DEIR should also describe modeling results for sediment depositional depths resulting from sediment disturbance and resettlement stemming from pipeline construction. Sediment quality data should include mean values, ranges, number and location of samples including those that exceed health criteria and the raw data itself should be included in a technical appendix.

The Pipeline Lateral ENF states that a Spill Prevention, Control, and Countermeasures Plan will be followed during pipeline construction to minimize the potential for impacts to natural resources. The DEIR should describe this plan in detail, and discuss how its goals would be achieved. For example, to ensure that water quality standards are met during construction, this discussion should include a detailed construction monitoring program and describe management measures and plans that would be included.

The Pipeline ENF states that upon completion of the pipeline's placement, the pipe will be hydrostatically tested with seawater, and that "each fill of the pipeline will represent approximately 1.5 million gallons of water". The Pipeline ENF also states that these tests may involve the injection of a biocide to inhibit corrosion. The DEIR should describe the number of fills that would occur, all chemicals used during hydrostatic testing, and the method of their treatment to ensure compliance with water quality standards. Methods to reduce entrainment of aquatic organisms in these tests should also be discussed.

Although the LNG vaporization process is a closed loop recirculation system using steam from the ships boilers for heat generation, the DWP ENF describes the operation of each vessel as requiring 54 million gallons per day (mgd) of seawater, an additional 13.75 million gallons of ballast water over a seven-day period for regasification purposes, and a discharge of approximately 3,170 gallons per day (gpd) of fresh wastewater. The ENF notes that the ballast waste will be exchanged outside of the 200-nautical-mile limit of federal waters before tankers arrive at the DWP. This activity may be subject to a National Pollutant Discharge Elimination System (NPDES) permit from the USEPA, as indicated in its comments. The DEIR should discuss the need for this amount of water and describe the manner in which water would be supplied and discharged, and any thermal or other potential water quality impacts associated with water discharge. This discussion should include a description of compliance with all appropriate water quality standards.

In addition to direct intake and discharge related impacts, the ENF is not clear if, or how, seawater would be chemically or physically altered as it pumped in, used and discharged. The DEIR should address the potential for contaminants, e.g., oil and grease, to be entrained in the water as it passes through the system, as well as the magnitude of potential changes in water temperature from in-take to discharge as well as type of material to be used for coating the pipeline prior to burial. The EIR should address the scope and extent of potential adverse impacts and discuss feasible mitigation measures for those impacts to Commonwealth waters that cannot be avoided. The DEIR should also list all chemicals to be used onboard the LNG ships and describe containment plans for these chemicals.

Chapter 91 Licensing Issues

The ENF asserts that the segment of the Pipeline Lateral from MP 0.0 to MP 6.3 is located within Land Under the Ocean (LUO) but beyond the nearshore area. The nearshore area, representing the limits of jurisdiction for review by local conservation commissions, is defined in 310 CMR 10.25(2) as those portions of LUO where the land is 80 feet below the level of the ocean. The EIR should document that the project will be limited to LUO in waters of greater than 80-foot depths; work in waters

less than 80 feet deep will require the filing of a Notice of Intent in the applicable municipality(ies). All other project work within the three-nautical-mile state/federal boundary, whether or not it would occur within the nearshore area, involves work in Commonwealth waters and remains subject to the Chapter 91 provisions of the Waterways Regulatory Program.

The Pipeline Lateral ENF also asserts that under the provisions of Chapter 91, the Pipeline Lateral is a water-dependent project because it is a facility related to the DWP and will serve marine-based transport of bulk LNG. The regulations at 310 CMR 9.12(b)(1) classify "marine terminals and related facilities for the transfer between ship and shore, and the storage of bulk materials or other goods transported in waterborne commerce" as a water dependent industrial use. Gas transmission pipelines are included within the Waterways regulation's definition of "infrastructure facilities" (310 CMR 9.02). Applying these provisions to the project, the DWP would need to be considered to be a "marine terminal" and the Pipeline Lateral a "related facility" in order to be determined a water-dependent use.

The proponent has not yet filed a Chapter 91 License application requesting water-dependent status for the Pipeline Lateral. A formal determination on a license application will not be made until after the issuance of a Certificate on the Final EIR and other pre-conditions to a completeness determination are met in accordance with the Waterways regulations at 310 CMR 9.11(3)(c). Therefore, MEPA review is not the process by which a determination will be made on whether the Pipeline Lateral is a water-dependent or non-water-dependent use. However, the Waterways regulations at 310 CMR 9.21(2)(c) provide that, if a variance is reasonably foreseeable, the information required for a variance application should be included in the EIR. If the proponent believes that a variance is reasonably foreseeable, additional information on these and other topics should be included in the DEIR to meet the requirements at 310 CMR 9.12(c).

Ocean Management

The proponents have indicated that they plan to "voluntarily incorporate the principles [of the Governor's Ocean Management

Task Force] into the design of the Port". The DEIR should expand on this discussion by analyzing the potential need for ocean siting of energy facilities, such as the proposed project. The DEIR should also include a discussion of the potential effect of this project on additional pipeline/port projects in the future. Recognizing that the construction and operation of the Hubline has led to an apparent opportunity for this proposal, the question arises as to how much potential for additional "pipeline/port proliferation" will exist after this project is completed. To address this question, the DEIR should describe, based on different assumptions of the existing and future gas natural input to the Hubline from onshore sources, under what circumstances the project would absorb all remaining capacity or, conversely, leave a surplus capacity that would allow the Hubline to accommodate more ocean-based pipeline spurs in the future. This discussion should be supplemented by mapping of suitable ocean locations for energy facilities such as the proposed project, based on substrate type, water depth, and other criteria identified in the DWP ENF. The maps should identify the offshore areas where such facilities are currently feasible and indicate how this feasibility would change with adjustments to the six siting criteria listed in the DWP ENF.

Air Quality

The natural gas that this project will provide to gas consumers in the region will aid the Commonwealth in attaining the eight-hour ozone National Ambient Air Quality Standard (NAAQS). However, the area of Eastern Massachusetts where the project is proposed to be sited is classified as a non-attainment area for ozone, and air pollutants will be generated during the construction and operation of the project.

The ENF indicates that, based on the proponent's experience in the construction of a similar project in the Gulf of Mexico, construction emissions are not expected to have an adverse impact on air quality. The DEIR should include relevant information on construction and operational emissions from the Gulf of Mexico project. Emission sources during operation include use of gas-fired boilers to vaporize the LNG and diesel-fueled back-up generators for the steam turbines.

Although the DWP is not proposed to be located within Commonwealth waters and is subject to federal permitting pursuant to the DWP Act, consistency with state regulatory requirements is a licensing performance standard. The ENF states the proponent intends to apply for a Prevention of Significant Deterioration (PSD) permit and a Title V Operating Permit. Although it is not listed in the ENF, the proponents have informed DEP that the project will also require plan approval under Emission Offset and Non-Attainment Review, which requires application of the Lowest Available Emission Rate analysis, (310 CMR 7.00 Appendix A). The DEIR should therefore include a discussion of proposed emission limits, quantification of the offsets that will be required, an alternative siting analysis, and ambient modeling to satisfy the requirements of the PSD permitting requirements.

The proponents should perform a general conformity analysis that satisfies the requirements of Section 176(c)(1) of the U.S. Clean Air Act and the General Conformity regulations promulgated by EPA in 1993 (40 CFR Part 51, Subpart W, and 40 CFR Part 93). The proponent should consult with DEP and EPA regarding the requirements and review thresholds for the conformity analysis. In general, the purpose of the conformity analysis is to show that federal actions support the goals of the State Implementation Plan (SIP) and be shown to not:

- Cause or contribute to new violations of any national ambient air quality standard (NAAQS) in any area;
- Increase the frequency or severity of any existing violation of any NAAQS; or
- Delay timely attainment of any NAAQS or interim emission reductions.

The proponent should mitigate to the maximum extent feasible construction-period impacts, including diesel emissions. The proponents should work with DEP to implement the Clean Air Construction Initiative (CACI) to achieve construction-period diesel emission mitigation, which should include the addition of after-engine emission controls such as oxidation catalysts or particulate filters for on-shore activities. In addition, the proponents should also require their contractors to use on-road ultra low sulfur diesel (ULSF) fuel in their off-road construction equipment. The use of ULSD fuel, in conjunction

with after-engine emission controls, can substantially increase particulate matter (PM) removal beyond that obtained solely with after-engine controls.

In its comments, EPA indicated that the project will require a Prevention of Significant Deterioration (PSD) permit and a Non-attainment New Source Review (NNSR) permit. I strongly encourage the proponents to consult with both USEPA and DEP prior to preparing the DEIR.

Construction and Decommissioning

The Pipeline Lateral ENF states that for the proposed construction of the pipeline, "if the pipeline is not lowered at least 1.5 feet Algonquin will consider importing rock, concrete mats or placing sand/cement bags as a supplement to ensure that the pipeline is covered..." and that "pipeline to be laid on hard-bottom will be covered with rock or nine-inch concrete mats." The DEIR should describe the rationale for covering the pipeline, particularly since at the proposed pipeline depth, the potential for scour is not likely. The proponent should consider a pipeline cover method that avoids the long-term maintenance issues associated with mats and bags, which may break down over time. The DEIR should also assess the proposed burial depth of the pipeline in order to ensure that the potential for conflicts with fishing gear is minimized.

The proponent anticipates installing the pipeline with one pass of a post-lay plow and then backfill plowing to cover the pipeline. Jetting may also be used in limited areas. The project will result in impacts to approximately 121 acres of seafloor. Clean sand should be used if any additional material is required as fill material. Recent experience in constructing major infrastructure on the seafloor in Massachusetts waters is limited to the construction of the Hubline subsurface pipeline. The DEIR should identify issues and lessons learned from the Hubline project, and discuss how this knowledge has guided construction planning for the proposed project. The DEIR should also include a description of alternative methods of pipeline construction that might be anticipated to reduce environmental impacts. For example, a plan for pipeline installation that includes work outside of the late-fall/early-winter period to avoid potential

delays and problems associated with storm activity could improve the accuracy of pipe-laying, trenching, and other related construction activities. The DEIR should specify evaluate techniques to avoid marine impacts during construction, such as the use of dynamically positioned derricks to eliminate anchor and chain scouring of the seafloor. Finally, the DEIR should discuss the potential for existing Designated Port Areas (DPAs) in harbors along Massachusetts Bay to serve as construction staging operations for the proposed project.

As stated in the DWP ENF, the DWP has an expected lifespan of approximately 20 years and decommissioning activities would include the removal of the buoy, chains, cables, riser and the connection to the pipeline. The DEIR should include a full discussion of decommissioning activities, including the potential for impacts to the seafloor, conflicts with fishing or other uses, or other impacts. In addition, the DEIR should discuss the future of the pipeline if the DWP is decommissioned.

Visual Impacts

The project as proposed would result in one LNG ship discharging gas at a buoy nearly all the time, except in extreme weather conditions. The DEIR should include a graphical illustration of both the daytime and nighttime appearance of the DWP facility with ships attached to the proposed buoy from nearby shore locations that are accessible to the public.

Marine Archeological Resources

A marine reconnaissance archeological survey is being conducted for the proposed project to determine the presence of shipwrecks in the proposed project areas. Based on the results of this survey work, the proponent should consult with the Massachusetts Historical Commission (MHC) and the Board of Underwater Archeological Resources to avoid, minimize, or mitigate adverse effects to archeologically or historically significant submerged cultural resources historic and archeological resources in the project's area of effect. The DEIR should include the pertinent survey information, results, and analysis.

Public Safety and Security

I expect that USCG and FERC will address public safety and security issues in their review of the project. While MEPA jurisdiction is largely focused on the environmental impacts of the project, the MEPA process is an appropriate forum to address the safety and security issues surrounding the project, particularly as they relate to the examination of alternatives and navigational issues necessary for CZM to issue its federal consistency determination for the project.

In accordance with the directives set by the appropriate federal agencies, the DEIR should include an analysis of the safety and security issues related to the construction and operation of the project, including exclusion zones, the regasification process, LNG tanker navigation, operations in extreme weather, back-up systems, accident scenarios and potential terrorist attack. This analysis should fully describe all safety systems, vessel safety records, and safety and security issues based on the experience of similar facilities.

Mitigation and Compensation

The MEPA process can serve an important role in coordinating the requirements for compensation and mitigation related to this project. The MEPA process should be used as an opportunity for resource and management agencies to recommend mitigation requirements at an early stage so that a comprehensive program that addresses priority issues related to the project can be developed in a coordinated fashion. This is particularly important for large infrastructure projects such as this one that involve multiple agencies, and raise important policy issues regarding the use of public trust resources. The permanent occupation of the seafloor by the projects may preclude or detrimentally affect other potential long-term future uses of the surrounding seabed and marine resources. Therefore, the DEIR should include proposals for compensatory mitigation, in consideration of the predicted 20-year life expectancy of the project versus any proposed restrictions on activity within the proposed safety exclusion around the DWP and potential impacts to marine habitat and fisheries and their anticipated recovery periods. In addition to regulatory mitigation requirements,

compensation may be required for this project under Chapter 91. In addition, The Deepwater Port Act at Section 1504(h)(2) and (3) provides for the potential payment of a fee to the adjacent state for the construction and operation of a DWP, subject to various conditions and limitations. The proponent should consider and describe mitigation related to natural resources, the fishing economy, energy infrastructure, recreation, and ocean management data. I ask that development of required mitigation be coordinated through my office.

Comments and Circulation

At a minimum, the DEIR should respond to the substantive concerns raised in the comment letters to the extent that they are within MEPA jurisdiction. I also encourage the proponent to review the comments submitted into the FERC Public record and to use this opportunity to address concerns that may not have been formally raised in the MEPA process.

The DEIR should include a copy of each comment letter submitted to the Secretary of Environmental Affairs (listed at the end of this Certificate) and respond to each substantive comment. The proponent should circulate a hard copy of the DEIR to each federal, state and local agency from which the proponent will seek permits or approvals.

To save paper and other resources, I will allow the proponent to circulate the DEIR in CD-ROM format to individual commenters, although the proponent should make available a reasonable number of hard copies available on a first come, first served basis, to accommodate those without convenient access to a computer. In the interest of broad public dissemination of information, I encourage the proponent to send a notice of availability of the DEIR (including relevant comment deadlines, locations where hard copies may be reviewed and electronic copies obtained, and appropriate addresses) to those who submitted comment letters to FERC. This notification may take the form of electronic notification for those comments submitted via e-mail.

Mitigation

The DEIR should include a summary of all mitigation measures to which the proponent has committed. The DEIR should contain Proposed Section 61 Findings for use by the state permitting agencies that include clear commitments to implement mitigation measures, including the schedule for implementation.

May 16, 2005
Date

Ellen Roy Herzfelder

Comments received:

04/12/05 Cheryl Gilbert
04/12/05 Kathy Goodson
04/13/05 Board of Underwater Archeological Resources
04/13/05 Whale Center of New England
04/15/05 Eastern Point Pilots
04/19/05 Massachusetts Historical Commission
04/19/05 Alessandro Cagiati
04/19/05 Sidney Falthzik
04/21/05 Gloucester Fishermen's Wives Association
04/21/05 Susan St. Pierre
04/22/05 Governor Mitt Romney
04/22/05 US Environmental Protection Agency
04/22/05 Associated Industries of Massachusetts
04/25/05 New England Fishery Management Council
04/25/05 Sierra Club
04/26/05 National Oceanographic and Atmospheric Administration
04/26/05 Department of Environmental Protection Northeast Regional Office
04/26/05 Conservation Law Foundation
04/26/05 Northeast Seafood Coalition
04/26/05 Peter O'Connor
04/26/05 Ann Ranger
04/26/05 Ambia Olsson Smith
04/27/05 Massachusetts Lobstermen's Association
04/27/05 Harriett & Victor Maffei
04/28/05 City of Gloucester

04/28/05 Julie Smith
04/29/05 Division of Energy Resources
04/29/05 Division of Marine Fisheries
04/29/05 Gloucester Fishermen Association
04/30/05 Kirsten Page
05/02/05 Captain Edward Boynton
05/02/05 Alessandro Cagiati
05/03/05 Metropolitan Area Planning Council
05/03/05 Gloucester Fishermen's Wives Association
05/05/05 Ethan D. Hoag
05/05/05 M. Blossom Hoag
05/06/05 Alessandro Cagiati
05/11/05 Office of Coastal Zone Management
05/16/05 City of Boston Environment and Energy Department
Multiple Petitioners

ERH/RAB/rab