

**APPENDIX E**

**RESPONSE OF THE FEDERAL ENERGY REGULATORY COMMISSION  
TO THE SAFETY ADVISORY REPORT OF THE  
NEW YORK STATE DEPARTMENT OF PUBLIC SERVICE  
FOR THE BROADWATER LNG PROJECT**

## APPENDIX E

### Response of the Federal Energy Regulatory Commission to the Safety Advisory Report of the New York State Department of Public Service

#### E.1 INTRODUCTION

The Natural Gas Act (NGA), as modified by the Energy Policy Act of 2005 (EPAAct of 2005), requires that the Federal Energy Regulatory Commission (FERC or the Commission) consult with the state in which an LNG terminal is proposed to be located regarding state and local safety matters. In December 2005, the governor of New York designated the New York State Department of Public Service (NYSDPS) as the state agency that FERC should consult with on safety and siting matters for the Broadwater Project.

NYSDPS submitted its February 28, 2006 Safety Advisory Report to FERC. In the report, NYSDPS addressed state and local considerations for the Project and provided comments from the New York State Department of State (NYSDOS), the New York State Emergency Management Office, the New York State Department of Transportation, and the New York State Office of Homeland Security, as well as the comments of several local governmental entities (Suffolk County, the Town of Huntington, the Town of Riverhead, and the Village of Poquott).

The EPAAct of 2005 also stipulates that before the Commission may issue an order authorizing an LNG terminal, it must "review and respond specifically" to the safety matters raised by the state agency designated as the lead for the state and local safety matters. Section E.2 of this Appendix provides FERC's response to the NYSDPS Safety Advisory Report for the Broadwater Project.

Section E.3 includes the cover letter for the report. The complete Safety Advisory Report, except for appendix E in the NYSDPS report, which is considered critical infrastructure information, is also included in the docket (CP06-054).

#### E.2 FERC RESPONSE TO THE ADVISORY REPORT

The NYSDPS identified the following key categories of potential safety concerns in the Safety Advisory Report:

- Alert and Notification Procedures;
- Emergency Planning and Response;
- Water Safety;
- Security Zone;
- National Fire Protection Act (NFPA)-59A;
- Fire Protection;
- Gas Safety;
- Design and Operation;
- Alternatives;

- Safety Aspects of Operations and Maintenance of Facility; and
- Homeland Security.

The “Safety Matters” section of the report provides a general summary of the comments of NYSDPS and the other state agencies. Appendix A to the report consists of a background survey of the natural and physical aspects, existing and proposed land use, and existing and projected population and demographic characteristics of Long Island Sound and the surrounding locations. This information was compiled by NYSDOS, and we included portions of the information in the EIS as appropriate. Specific concerns related to NFPA-59A and the New York State Building Code are presented in Appendix B to the report, specific issues related to fire protection and the New York State Fire Code are presented in Appendix C to the report, and specific issues related to fire protection and safety issues are presented in Appendix D to the report. The EIS also incorporates relevant information from the comments presented Appendix F of the report.

The Safety Advisory Report included both general and specific safety matters that NYSDOS requested be included in FERC’s review of the Broadwater application. FERC’s specific responses to those concerns are presented in tabular format in Table A-1 in the order of the issues presented in the report. Where appropriate, the response identifies the section of the EIS where information on the issue of concern is addressed.

As described in Section 1.0 of the EIS, the Coast Guard has shared responsibility with FERC in reviewing the Broadwater Project and has presented the results of its review in its Waterway Suitability Report (WSR). In addition to including the publicly available portion of the WSR in Appendix C of the EIS, we have summarized portions of it in the EIS. As a result, for some concerns presented in the Safety Advisory Report, we have noted that the issue is addressed in the WSR, as well as the specific section of the EIS where the concern is addressed.

In addition to this response, FERC discussed the report with representatives of NYSDPS during telephone conference calls on February 2 and February 7, 2006. This response has been updated in address to the NYSDPS comment letter dated January 22, 2007.

**TABLE E-1**  
**FERC's Responses to Concerns Presented in the**  
**NYSDPS Safety Advisory Report for the Broadwater Project**

Topic	Issue	Response <sup>a</sup>
<b>Alert and Notification Procedures</b>	Development of adequate alert and notification procedures from the facility operators to off-site authorities under various circumstances and scenarios.	Addressed in Sections 3.10.2, 3.10.4, and 3.10.9 and in the Coast Guard's Waterway Suitability Report (WSR), which is presented in Appendix C of the EIS.
	Notification of the schedules for LNG vessel traffic, including impacts on commercial and non-commercial vessels	Addressed in Sections 3.7.1.4 and 3.10.4.4 and in the WSR.
<b>Emergency Planning and Response</b>	Identification and evaluation of potential impacts of an accident at the facility, including but not limited to failure of the yoke mooring system and disconnection of the gas pipeline; and impacts on land-based population centers as a result of accidents.	Addressed in Sections 3.5.2, 3.10..3, and 3.10.6.
	Development of an emergency plan, which includes but is not limited to a system for warning the population that may be endangered; centralized coordination of resources, personnel, and services; and communications to efficiently activate emergency operations centers. An analysis of all applicable local, state and federal emergency planning standards and jurisdictional responsibilities is recommended.	Addressed in Section 3.10.6 and in the WSR.
	Establishment of emergency planning assumptions based on sound technical information. These assumptions should be shared and validated by all involved local, county, state, and federal agencies.	Addressed in Section 3.10.6 and in the WSR.
	Ensuring coordination of any emergency plans and procedures among local, state, and federal entities.	Addressed in Section 3.10.6 and in the WSR.

**TABLE E-1 (continued)**  
**FERC's Responses to Concerns Presented in the**  
**NYSDPS Safety Advisory Report for the Broadwater Project**

Topic	Issue	Response <sup>a</sup>
	Ensuring that the United States Coast Guard (USCG) will include local, state, and federal agencies with responsibility for response or recovery activities in its ongoing process to develop emergency plans.	Addressed in Section 3.10.6 and in the WSR.
	Ensuring consistency of operating plans and procedures with the National Incident Management System (NIMS) principles and methods.	Addressed in Section 3.10.6 and in the WSR.
	Training of entities such as the USCG in NIMS to ensure the highest level of proficiency and coordination.	Addressed in Section 3.10.6 and in the WSR.
	Analyzing minimum emergency response capabilities, including the potential need for sophisticated vessels and specialized teams to respond to LNG incidents.	Addressed in Section 3.10.6 and in the WSR.
	Identification of gaps in municipal emergency, medical services, and fire response capabilities and how these gaps will be addressed.	Addressed in Section 3.10.6.
	Ensuring that the emergency contact list identified in Resource Report 11, page 64, is comprehensive and inclusive of all appropriate state, federal, and local entities, including the U.S. Department of Transportation USDOT), the NYS Department of Transportation, and NYSDPS.	Addressed in Section 3.10.6 and in the WSR.

**TABLE E-1 (continued)**  
**FERC's Responses to Concerns Presented in the**  
**NYSDPS Safety Advisory Report for the Broadwater Project**

Topic	Issue	Response <sup>a</sup>
<b>Water Safety</b>	Ensuring that the employees, including any contractors, involved in operations and maintenance activities for the FSRU, tug boats, and the pipeline are qualified and periodically retested to ensure proper knowledge and the ability to perform critical operations; and identify the safety-related standards which are applicable to the project.	Addressed in Section 2.4.1 and in the WSR.
	Developing a plan to address the event of a gas odorant spill.	Addressed in Section 3.2.2.1, 3.10.3, and 3.10.6..
	Identification of potentially unsafe conditions for recreational boaters, fishers, or other vessels in relation to the FSRU and LNG carriers.	Addressed in Sections 3.5.5.1 and 3.7.1.4 and in the WSR.
	Identification and analysis of potential accidents, risks, impacts, and damages to people, vessels (e.g., oil and naval), and other facilities, based on the timing of LNG carrier deliveries to the FSRU (i.e., night versus day), the proximity to commonly used commercial shipping lanes, the frequency of use of the shipping lanes, and with respect to breach/ship interactions, ignition of escaping natural gas, and the LNG vapor dispersion.	Addressed Sections 3.5.5.1 and 3.7.1.4 and the WSR.
	Analyzing water use conflicts and safety, such as barge and tug boat traffic during construction of the pipeline and to service the FSRU when operational.	Addressed in Sections 3.5.5.1 and 3.7.1.4 and in the WSR.

**TABLE E-1 (continued)**  
**FERC's Responses to Concerns Presented in the**  
**NYSDPS Safety Advisory Report for the Broadwater Project**

Topic	Issue	Response <sup>a</sup>
<b>Security Zone</b>	Assessing the impact of water currents, particularly through the Race on the eastern part of Long Island Sound, on the safety analysis.	Addressed in Section 3.7.1.4 and in the WSR.
	Analyzing the size and scope of the security zone around the FSRU and associated vessels, including how the security zone compares to the zones for other existing or proposed offshore LNG facilities. Any differences in the zones should be justified.	Addressed in Sections 3.10.3 and 3.10.4.3 the WSR.
<b>NFPA-59A</b>	Analyzing the adequacy of all applicable safety standards relating to the design, construction, and operation of the FSRU and related onshore facilities and vessels.	Addressed in Section 3.10 and in the WSR.
	Analyzing consistency with NFPA-59A and the New York State Building Code, as identified by the NYSDOS in Appendix B.	Addressed in Section 3.10.2.1 and below (New York State Building Code).
<b>Fire Protection</b>	Analyzing consistency with the New York State Fire Code, as identified by the NYSDOS in Appendix C to the report.	Addressed below (New York State Fire Code).
	Analyzing fire protection and safety issues, as identified by the NYSDOS in Appendix C to the report.	Addressed below (Fire Protection and Safety Issues).
<b>Gas Safety</b>	Analyzing the interchangeability of the vaporized gas leaving the FSRU, including the BTU content, the Wobbe Index range, and the concentration of inert gas to ensure the safe operation of the gas transportation and distribution systems and gas utilization equipment.	Addressed in part in Section 2.4.2.

**TABLE E-1 (continued)**  
**FERC's Responses to Concerns Presented in the**  
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Topic	Issue	Response <sup>a</sup>
	Ensuring compliance of the design, construction, operations, and maintenance of the pipeline with the applicable requirements of 49 CFR Part 192.	Addressed in Sections 3.10.9.
	Ensuring compliance of the operation and maintenance of the LNG transfer, storage, and regasification facilities and processes with applicable requirements of 49 CFR Part 193 and NFPA 59A (See Appendices B, C, and D). If there are overlapping requirements, the more stringent operations and maintenance standards should be adopted.	Addressed in Section 3.10.2.1.
	Specification of minimum fracture toughness in the design of the pipeline. Proper clearance and construction methods must be addressed where the pipeline will cross any and all cables and other facilities.	Addressed in Section 2.3.1 and 2.3.2.2.
<b>Design and Operation</b>	Evaluation the design feasibility of either moving the FSRU out of Long Island Sound or to a safer location in preparation of severe weather events. Specific design considerations, as well as the reduction of the stored volume of LNG, should be addressed.	Addressed in Section 3.10.6 and the WSR.
	Examination of the anticipated method and frequency of the delivery of chemicals used onboard the FSRU listed in Resource Report 11.	Addressed in Section 3.10.2.4.
	Development of a size threshold (or other criteria) which will determine a "small" carrier as opposed to a "large" carrier, and exactly when additional tugs will be required.	Addressed in Sections 3.7.1.1 and 3.7.1.4, and in the WSR.

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**TABLE E-1 (continued)**  
**FERC's Responses to Concerns Presented in the**  
**NYSDPS Safety Advisory Report for the Broadwater Project**

Topic	Issue	Response <sup>a</sup>
<b>Alternatives</b>	Assessing the comparability of any safety concerns by locating the facility at another viable alternative site, such as within the Atlantic Ocean.	Addressed in Section 4.4.
<b>Safety Aspects of Operations and Maintenance of Facility</b>	Identification of applicable safety requirements regarding maintenance and operation, including which entities and the specifics of the programs that will be applicable in ensuring compliance with those requirements.	Addressed in Sections 3.5.5.2, 3.10.2.1, and 3.10.
	Identification of public health and safety risks for people living onshore and recreating at public parks within the vicinity of the FSRU.	Addressed in Sections 3.10.
	Analyzing how the Commission will accommodate state safety inspections, as provided for under the NGA, to ensure continued safe operation and maintenance.	Addressed in Section 2.4.1.
<b>Homeland Security</b>	Ensuring that all recommendations made by the Coast Guard regarding security measures required at both the onshore and offshore facilities of the project are carefully considered.	Addressed Section 3.10 and in the WSR.
	Ensuring that employees' backgrounds are screened prior to being hired, and security clearances are required as necessary.	Addressed in Section 3.7.1.
<b>New York State Building Code (Appendix B to the Report)</b>	NY state building code requires a fire residence rating of 4 hours.	Not applicable: engineering, design, and other applicable regulatory requirements for the FSRU are summarized in Section 3.10.

**TABLE E-1 (continued)**  
**FERC's Responses to Concerns Presented in the**  
**NYSDPS Safety Advisory Report for the Broadwater Project**

Topic	Issue	Response <sup>a</sup>
	Should this facility have a maximum allowable height	Not applicable: engineering, design, and other applicable regulatory requirements for the FSRU are summarized in Section 3.10.
	NY state building code requires information regarding the facilities surfaces so fire spread, interior finish, or roof fire classification can be determined	Not applicable: engineering and design requirements for the FSRU are summarized in Section 3.10.
	NY state building code requires complete information regarding the sprinkler system and leak detection system	Not applicable: engineering, design, and other applicable regulatory requirements for the FSRU are summarized in Section 3.10.
	The FSRU exiting system does not terminate at a public way as required by NY state building code	Not applicable: engineering, design, and other applicable regulatory requirements for the FSRU are summarized in Section 3.10.
	NY state building code requires plans so the state can evaluate corridors, stairs, and travel distances as well as accessibility for the physically disabled	Not applicable: engineering, design, and other applicable regulatory requirements for the FSRU are summarized in Section 3.10.
	NY state building code requires a wind design load greater than that proposed for the facility	Not applicable: engineering, design, and other applicable regulatory requirements for the FSRU are summarized in Section 3.10.
	NY state building code requires calculations describing seismic and snow loads	Not applicable: engineering, design, and other applicable regulatory requirements for the FSRU are summarized in Section 3.10.
	NY state building code requires information on the installation of elevators	Not applicable: engineering, design, and other applicable regulatory requirements for the FSRU are summarized in Section 3.10.

**TABLE E-1 (continued)**  
**FERC's Responses to Concerns Presented in the**  
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Topic	Issue	Response <sup>a</sup>
<b>New York State Fire Code (Appendix C to the Report)</b>	NY state fire code requires all weather accessibility	Not applicable: engineering, design, and other applicable regulatory requirements for the FSRU are summarized in Section 3.10.
	NY state fire code requires protection against the forces of nature. Therefore provide information on the ability of the YMS to withstand storms	Addressed in Section 3.10.2.3.
	Evacuation, isolation, and rescue procedures shall be assessed	Addressed in Section 3.10.4.2 and 3.10.6.
	Sites shall provide provisions for retaining spilled LNG on site	Not applicable.
	An impounding area, at least 50 feet from navigable waterways shall be provided to protect against spills	Not applicable.
	LNG structure shall be on lightweight, noncombustible construction with non-load bearing walls	Not applicable: engineering, design, and other applicable regulatory requirements for the FSRU are summarized in Section 3.10.
	A design professional registered in the state of New York is required to design the FSRU	Not applicable: engineering, design, and other applicable regulatory requirements for the FSRU are summarized in Section 3.10.
	Concrete used in LNG facilities must be in accordance with design standards	Not applicable
	NY state fire code requires schematics and plans for the process equipment	Not applicable
	Design specifications of storage containers not provided	Addressed in Sections 2.1.1.3, 3.10.2, and 3.10.3.
Foundations shall not be in contact with water	Not applicable.	

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**TABLE E-1 (continued)**  
**FERC's Responses to Concerns Presented in the**  
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Topic	Issue	Response <sup>a</sup>
	Metal containers shall met either API 620 low pressure storage standard or ASME pressure vessel code	Addressed in Sections 2.1.1.3, 3.10.2, and 3.10.3.
	The type and arrangement of vaporizers needs to be assessed	Addressed in Section 2.1.1.4 and Figure 2.1-5.
	The construction, testing, and inspecting of pipeline materials needs to be assessed	Addressed in Section 3.10.9.
	Instrumentation to monitor the operation of facilities and the interior of containers is required	Addressed in Section 3.10.2.1.
	Tank vehicles under the jurisdiction of the U.S. DOT must comply with their regulations	Not applicable: engineering, design, and other applicable regulatory requirements for the FSRU are summarized in Section 3.10.
	A report describing hazards and mitigation techniques has not been provided	Addressed in the WSR
	Information regarding the facilities operational safeguards including site inspection and employee training have not been submitted	Addressed in Section 3.10 and in the WSR.
<b>Fire Protection and Safety Issues (Appendix D to the Report)</b>	Towns on the shorelines of Long Island Sound would not be able to respond to an emergency on the FSRU	Addressed in Section 3.10.6 and in the WSR.
	The Sandia Report May not be appropriate for use in assessing risks associated with Broadwater	Addressed in Section 3.10.3, 3.10.4, and in the WSR.

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**TABLE E-1 (continued)**  
**FERC's Responses to Concerns Presented in the**  
**NYSDPS Safety Advisory Report for the Broadwater Project**

Topic	Issue	Response <sup>a</sup>
	NYSDOS via the office of fire prevention and control believes it should have a role in the development of an Emergency Response Plan	Addressed in Section 3.10.6.
	Broadwater should have tug boats available for FSRU fire fighting purposes	Addressed in Sections 3.7.1.1, 3.7.1.4, and 3.10, and in the WSR.

<sup>a</sup> Sections listed are the relevant sections of the Environmental Impact Statement for the Broadwater LNG Project.