112 FERC ¶ 61,070 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;

Nora Mead Brownell, Joseph T. Kelliher,

and Suedeen G. Kelly.

Weaver's Cove Energy, LLC Docket No. CP04-36-000

Mill River Pipeline, LLC Docket Nos. CP04-41-000

CP04-42-000

CP04-43-000

ORDER GRANTING AUTHORITY UNDER SECTION 3 OF THE NATURAL GAS ACT AND ISSUING CERTIFICATE

(Issued July 15, 2005)

- 1. On December 19, 2003, Weaver's Cove Energy, LLC (Weaver's Cove) filed an application under section 3 of the Natural Gas Act (NGA) requesting authority to site, construct, and operate a liquefied natural gas (LNG) terminal in Fall River, Massachusetts. Also on December 19, 2003, Mill River Pipeline, LLC (Mill River), an affiliate of Weaver's Cove, filed an application under section 7(c) of the NGA to construct and operate two new lateral pipelines to transport revaporized natural gas from the proposed Weaver's Cove LNG facility to two separate interconnects with interstate pipeline facilities of Algonquin Gas Transmission Company (Algonquin). Mill River also requests a blanket certificate authorizing open-access transportation under Subpart G of Part 284 of the Commission's regulations, and a blanket certificate under Subpart F of Part 157 of the regulations authorizing certain routine construction activities.
- 2. On April 14, 2004, the Commission issued an order denying a request by Weaver's Cove for a preliminary determination on non-environmental issues in this proceeding. We stated that the Commission would issue a decision on the merits of the proceeding upon completion of the environmental analysis of the proposed project. We have now completed our review under the National Environmental Policy Act of 1969 (NEPA).
- 3. In performing this review, we have taken a number of extraordinary steps to assure detailed consideration of safety and security issues regarding both the proposed LNG import terminal and related LNG vessel operations. Recognizing the public

¹ See 107 FERC ¶ 61,022 (2005).

concern, the U.S. Coast Guard in coordination with the Commission initiated a series of workshops with local law enforcement agencies and port stakeholders to develop the procedures and resources required to manage the safety and security of LNG vessels while moving through Narragansett Bay and unloading LNG at the dock. An initial vessel transit security plan is summarized in the final environmental impact statement (FEIS). This process was the most extensive effort ever performed prior to Commission authorization of an LNG import project, and will serve as a blueprint for evaluating future proposals.

- 4. In response to comments from local agencies about the security and emergency management cost that could be imposed on state and local agencies, we are adopting the FEIS' recommendation that Weaver's Cove be required to prepare a comprehensive plan identifying the mechanisms for funding all project-specific security and emergency management costs incurred by state and local agencies. We are also requiring Weaver's Cove to file an initial emergency response plan and identify emergency evacuation routes prior to construction, to develop emergency response plans with local officials throughout the construction period, and to report progress at 6-month intervals as recommended in the FEIS. We are also requiring additional safety measures by requiring Weaver's Cove to incorporate into the final design of the terminal improved features for cryogenic valves, instrumentation, equipment isolation, hazard detection and control systems. Weaver's Cove must also revise the design of the spill impoundment sump and transfer line trenches for improved control of vapors associated with potential LNG spills, provide a back-up to the firewater system using either a fire water storage tank or river water, and include provisions for recovering boil-off gas under all operating conditions.
- 5. With these conditions and others discussed herein, we find that the proposed new LNG terminal will promote the public interest by increasing the availability of natural gas supplies in the New England market and that the Mill River laterals are required by the public convenience and necessity to connect the proposed LNG facilities to the interstate pipeline system.

Background

6. The New England region's demand for natural gas is growing, driven largely by the increasing use of natural gas for electric power generation. The U.S. Energy Information Administration (EIA) projects that total gas consumption in New England will increase at an annual average rate of 1.38% between 2004 and 2024, but that U.S. domestic gas production will grow at a slower rate than demand. A recent report to

the New England Governors by the Power Planning Committee of the New England Governors' Conference (Governors' Conference Report) found that the region should have adequate delivery infrastructure to meet winter cold day peak demands through 2010, but that to ensure reliable delivery of natural gas to the region after that time there must be a substantial amount of demand reduction or infrastructure development.²

- 7. Weaver's Cove states that, for cost reasons, long-line pipeline expansions to serve New England appear to be unlikely in the near future. Because the interstate pipeline system is currently running at nearly full capacity during the winter, and because there are no geological gas storage formations in New England, LNG storage plays a significant role in meeting winter peak day heating demands for natural gas. Weaver's Cove states that on an average winter peak day demand can exceed pipeline capacity by over 1 Bcf.
- 8. The Governors' Conference Report explains that LNG meets approximately 20 percent of New England's annual gas demand, and that in the winter this increases to well over 30 percent. Currently, LNG is transported by truck from the Distrigas LNG import storage facility in the Boston, Massachusetts vicinity to local distribution company LNG storage tanks in 31 communities in 5 states. These facilities have the ability, states the Governors' Conference Report, to hold just over 10 days of winter peak demand volumes.

Proposals

Weaver's Cove LNG Terminal

9. In Docket No. CP04-36-000, Weaver's Cove proposes to construct an LNG terminal with a peak day sendout capacity of 800 MMcf a day on a site located on the Taunton River in the City of Fall River, Massachusetts. The proposed facilities include a marine berth, an LNG storage tank, regasification facilities, and an LNG truck distribution facility. The proposed terminal will receive LNG from ocean-going ships and store the LNG. LNG will be transferred into trucks for transportation to peak shaving storage facilities and industrial customers throughout New England, and vaporized LNG will be delivered as pipeline quality natural gas at approximately 1,000 psi into the pipeline laterals to be constructed by Mill River for transportation to the proposed interconnects with the Algonquin system for further transportation.

² The Power Planning Committee of the New England Governors' Conference, Inc., *Meeting New England's Future Gas Demands: Nine Scenarios and Their Impacts*, March 1, 2005.

- 10. Weaver's Cove avers that its LNG terminal is in the public interest because it will increase the supply of natural gas in the heart of the rapidly growing New England gas market which, its studies show, is greatly in need of incremental gas supply. Because the proposed LNG terminal is in close proximity to this market and to existing pipeline facilities, it states, gas can flow into major gas markets without the cost and environmental impacts associated with new pipeline construction. In addition, the proposed terminal will incorporate four truck filling stations for loading motor carriers that will deliver LNG to numerous LNG peak shaving storage facilities and industrial customers located throughout New England. The Weaver's Cove LNG terminal will be located on the site of a former petroleum terminal in a Designated Port Area already identified under the Massachusetts Coastal Zone Management Program (CZMA) as being set aside for water-dependent industrial uses.
- 11. Weaver's Cove states that, as a new entrant into United States LNG markets, it has no existing customers that could be adversely affected by its project. Weaver's Cove does not propose to offer open access service or maintain a tariff or rate schedule for service from its proposed facility. Weaver's Cove has executed a binding precedent agreement with Metis Energy, LLC (Metis), an affiliate of Weaver's Cove, for all the LNG terminal's capacity. Weaver's Cove's costs will be recovered through the sale of natural gas, and Weaver's Cove will assume the entire economic risk of constructing and operating the proposed LNG terminal.

Mill River Lateral Pipelines

12. In Docket No. CP04-41-000, Mill River proposes to construct and operate two 24-inch diameter laterals that will connect the outlet of the Weaver's Cove LNG terminal to the Algonquin pipeline system, which applicant describes as the main pipeline supply system for Rhode Island and Southeastern Massachusetts. The proposed Western Lateral will extend 2.52 miles from the Weaver's Cove LNG facility to Algonquin's existing 20-inch diameter G-22 lateral pipeline. As proposed, the Western Lateral will cross under the Taunton River in a northwesterly direction, briefly coincide with Riverside Avenue, travel along two existing electric transmission rights-of-way (ROW), and cross approximately 1,800 feet of forested land to the Algonquin interconnect. The other Mill River lateral, the Northern Lateral, will extend 3.59 miles from the LNG terminal to Algonquin's existing 12 and 20-inch diameter G-1 laterals. For most of its length, the Northern Lateral will occupy an existing pipeline ROW containing an idled 20-inch naphtha pipeline. The two Mill River laterals will each have a design pressure of 1,440 psi and a normal operating pressure of up to 1,000 psi.

- 13. Mill River states that it has proposed two laterals rather than one in order to provide for reliable base-load deliveries of 400,000 Dth per day of vaporized LNG into the Algonquin system, and to accommodate peak day deliveries of up to 800,000 Dth per day. It further explains that it selected the two proposed Algonquin interconnection points to optimize the receipt of gas on Algonquin to facilitate increasing effective capacity through backhauls.
- 14. In August 2003, Mill River held a two-week open season for bidding for the Mill River proposed capacity. As a result of the open season, which included a requirement that the bidder concurrently subscribe for equivalent sendout capacity from the proposed Weaver's Cove LNG terminal, Mill River entered into a precedent agreement with its affiliate Metis for firm capacity totaling 400,000 Dth per day, and interruptible capacity of 400,000 Dth per day for a term of 30 years at maximum recourse rates.

Interventions and Procedural Matters

15. Notice of the Weaver's Cove and Mill River applications was published in the *Federal Register* on January 9, 2004 (69 *Fed. Reg.* 1580). Timely, unopposed motions to intervene in this proceeding were filed by a number of parties and are granted by operation of Rule 214 of the Commission's regulations. Untimely unopposed motions to intervene were filed by the City of Fall River, the KeySpan Delivery Companies (KeySpan Delivery), Somerset Power LLC, New England Gas Company, FPL Group Resources LLC, Sempra Energy LNG, Amerada Hess Corporation, ExxonMobil Gas & Power Marketing Company, Green Futures, the Attorney General of the State of Rhode Island, National Grid USA, and Project Technical Liaison Associates, Inc., individually, and Statoil ASA and Statoil Natural Gas LLC, jointly. Because these entities demonstrated an interest in this proceeding and granting late intervention at this stage of the proceeding will not delay, disrupt, or otherwise prejudice the rights of any party, for good cause shown, we will permit their late intervention.

³ 18 C.F.R. § 385.214.

⁴The Brooklyn Union Gas Company, dba KeySpan Energy Delivery New York; KeySpan Gas East Corporation, dba KeySpan Energy Delivery Long Island; and Boston Gas Company; Colonial Gas Company, EnergyNorth Natural Gas, Inc.; and Essex Gas Company, collectively known as KeySpan Energy NE.

⁵ Somerset requests intervention only in the Mill River applications, Docket Nos. CP04-41-000, CP04-42-000, and CP04-43-000.

- 16. On July 30, 2004, the Commission issued notice of the availability of a draft environmental impact statement (DEIS). The DEIS invited comments from the public and stated that intervention may be sought based on the DEIS. The Attorney General of the Commonwealth of Massachusetts, the Conservation Law Foundation, Merchants Mills Limited Partnership, Save the Bay, Narragansett Bay, Inc., and Michael L. Miozza filed requests to intervene, and they have been added as parties to the proceeding. All the intervenors are listed in Appendix A to this order.
- 17. The Commission also received several hundred comments from interested individuals and groups, many objecting for safety reasons to locating an LNG terminal in Fall River. The location of the proposed LNG facility and safety issues relating to operation of the facility and transportation of LNG by ship to the LNG facility are addressed in the environmental discussion in this order.

Requests for Evidentiary Hearing, Comparative Hearing and a Regional Approach to LNG Facilities Siting

- 18. On September 16, 2004, the Mayor of Fall River filed a motion requesting the Commission to hold a full evidentiary hearing in this matter. The Mayor averred that there is a serious factual dispute regarding the safety of an LNG terminal facility at the site proposed by Weaver's Cove. The motion states that the Mayor is prepared to submit evidence at an oral hearing consistent with a number of reports attached to the motion from a consultant scientist and various Fall River officials that question the safety of the proposed facility. Weaver's Cove replied to the motion, requesting that it be denied.
- 19. The Attorneys General of Massachusetts and Rhode Island, along with the City of Fall River, Green Futures, and the Conservation Law Foundation request that the Commission develop a regional strategic plan for assessing the need for and siting of LNG marine terminals in New England, the availability of alternatives to LNG deliveries into the area by ship, and public safety and security concerns. The Conservation Law Foundation suggests that this regional approach should be in the context of a programmatic type EIS addressing a broad array of what it calls complicated and controversial issues to provide a larger context for LNG terminal siting decisions in New England.
- 20. On May 12, 2005, the City of Fall River and the Attorney General of Massachusetts (movants) jointly filed a motion requesting that the Commission consolidate this proceeding with all other pending LNG facilities applications in the New England region, that the Commission invite additional proposals for LNG facilities or other projects that could address the natural gas needs of New England from others who are considering projects (including deepwater ports not subject to the Commission's jurisdiction), and that the Commission hold a comparative type evidentiary hearing to identify and assess which of these projects can best serve those needs in the safest

manner. They state that the Commission adopted this kind of approach in the 1980's when it consolidated existing applications to provide natural gas service by pipeline to the Northeast United States, and established an open season "aggressively" soliciting new applications. Discussion of alternatives as part of the environmental impact process is not sufficient, they say, because there are numerous material issues, especially safety issues, that can be properly addressed only through examination of witnesses as part of a "rigorous trial-type adjudication". Although movants implicitly acknowledge that the Ashbacker doctrine⁷ requiring a comparative hearing when applications are mutually exclusive may not strictly apply here, they contend that public safety can be determined only by assessing whether there are alternatives available that would offer less risk than others. They argue that the Commission should not narrowly limit itself to considering only alternatives that offer LNG deliveries by truck, and thereby eliminate from consideration feasible services that could meet New England's broader gas needs, such as, for example, offshore LNG facilities or increased pipeline deliveries from Canadian LNG facilities. They state that the Commission should not certify LNG facilities of the type proposed by Weaver's Cove in the heart of an urban area until it examines fully and openly all the serious safety implications of the proposal and compares the risks against all credible alternatives. Rather than causing delay, movants aver that this comprehensive procedure likely would offer the most expeditious vehicle for the earliest possible introduction into New England of new supplies of natural gas. On May 27, 2005, intervenor Merchants Mills filed a pleading stating an intention to join in the motion. On June 16, 2005 the Massachusetts Energy Facilities Siting Board filed a pleading in support of the hearing request, to which Weaver's Cove replied on June 27, 2005.

21. In the motion The City of Fall River and the Massachusetts Attorney General state that at such a hearing they would offer witnesses that would address the safety implications of operating onshore LNG facilities and navigating LNG tankers along inland waterways, the implausibility of preventing threats to public safety and the impossibility of assuring safe evacuation in the event of an accidental or intentional spill, the implications of required security precautions on regional development, infrastructure, recreational, commercial and residential resources, the availability of alternatives, and other issues "central to the resolution of the public interest determinations that the Commission will be called upon to make." Subsequently, on June 9, 2005, movants submitted written testimony that they say they would offer at the adjudicatory hearing they seek in their motion.

⁶ See Northeast U.S. Pipeline Projects, 40 FERC ¶ 61,087 (1987), (Notice Inviting Applications to Provide New Gas Service to the Northeast U.S.) (Northeast Pipelines).

⁷ Ashbacker Radio Corporation v. FCC, 326 U.S. 327 (1945).

22. On June 28, 2005, the Attorney General of Rhode Island also filed a request for a full evidentiary hearing. The Attorney General states that there are a number of material issues of fact that remain in dispute regarding the security of LNG vessels traveling through Rhode Island coastal waterways to Fall River. These issues, he argues, which relate to the threat and consequences associated with a deliberate attack on an LNG vessel, must be examined in a trial-type hearing in which witnesses would be subject to cross-examination to test their competency and conclusions. The Attorney General of Rhode Island also supports the request by the City of Fall River and the Attorney General of Massachusetts that the proceeding be a comparative evidentiary hearing.

Answer by Weaver's Cove

- 23. In reply, Weaver's Cove argues that the May 12, 2005 motion is inexcusably late. Weaver's Cove points out that it filed its application in December 2003, approximately 18 months ago, after participating for approximately 6 months in the Commission's NEPA pre-filing process. Further, holding an oral hearing at this point, it argues, would unfairly prejudice Weaver's Cove and its right to timely processing of its application. It states that requests such as those now made by the City and the Attorney General must be filed at the early stages of a proceeding to allow an orderly procedure for the expeditious and administratively efficient processing of an application. The trial-type evidentiary hearing process suggested by movants, avers Weaver's Cove, will guarantee endless delays in the processing of all applications to bring gas supplies to New England.
- 24. Consolidation of its project application with other proposed or potential projects, avers Weaver's Cove, will be unduly burdensome on the participants in this proceeding and unnecessary for the Commission to carry out its responsibilities under NEPA. Weaver's Cove also calls the suggestion for an open season for new proposals and a comparative hearing process unwieldy and unworkable. The Northeast Pipelines situation does not apply here, says Weaver's Cove, and there are too many variables in the types and stages of development of projects suggested to allow for an effective hearing that would facilitate bringing new LNG import facilities to New England. Even after a protracted hearing, any project selected by the Commission would then have to undergo further environmental scrutiny, likely local opposition, and rigorous state and federal permitting processes. Weaver's Cove avers that the Commission has already analyzed extensively both onshore and offshore alternatives to its project as part of its environmental review and asserts that the new motion for a comparative hearing is an attempt to compel the Commission's detailed review of impracticable theoretical alternatives, while at the same time brushing aside a significant and reasonable goal of its project, namely LNG truck deliveries to peakshaving facilities.

Commission Response

- 25. We will deny the requests for an evidentiary, trial-type hearing. The Commission has substantial discretion in deciding whether to hold a trial-type evidentiary hearing or to give interested parties an opportunity to participate through evidentiary submission in written form. Trial-type evidentiary hearings are required only where there are material issues of fact that cannot be resolved on the basis of the written record. 8 The Commission invited written comments from all interested persons and has held public meetings in Massachusetts and Rhode Island for oral presentation of evidence. The reports attached to the Mayor's earlier motion for evidentiary hearing are part of the record. There is a plethora of additional materials in the record from government agencies, scientists, and others addressing the safety issue. These materials and the safety issue raised by these materials are treated in considerable detail in the Commission's FEIS. All interested parties have been afforded a full and complete opportunity to present their views to the Commission through written submissions. Indeed, we have considered all materials submitted to the Commission up to the time the FEIS was issued, far exceeding our normal timelines for submitting comments and far exceeding the comment deadlines originally established in this proceeding. All aspects of the safety issue, including those areas with respect to which the City of Fall River and the Attorney General would introduce witnesses, have been fully presented as part of the written record, and there is ample evidence to permit us to make a reasoned determination. Contrary to movants' assertion, we do not believe that cross examination of witnesses at a hearing would assist us in understanding or resolving the technical issues before the Commission in this proceeding. We find that there is no material issue of fact regarding the safety issue that we cannot resolve on the basis of the written environmental record in this proceeding. Therefore, in addition to denying the request for a trial-type hearing, we will also reject the written testimony tendered by the City of Fall River and the Attorney General on June 9, 2005 which they say they would offer at such hearing.
- 26. Although we are denying the requests for a full trial-type evidentiary hearing, we note that in response to a request from Mayor Lambert, the Commission's Chairman Wood and Commissioner Kelly met with the Mayor, U.S. Senators Edward Kennedy and John Kerry, U.S. Congressman James McGovern, Massachusetts Representative David Sullivan, and Ranch Kimball, Director of Economic Affairs for the Commonwealth of Massachusetts (Representing Massachusetts Governor Mitt Romney) at a meeting open

⁸ See, e.g., Southern Union Gas Co. v. FERC, 840 F.2d 964, 970 (D.C. Cir. 1988); Cerro Wire & Cable Co. v. FERC, 677 F.2d 124 (D.C. Cir. 1982); Citizens for Allegan County, Inc. v. FPC, 414 F.2d. 1125, 1128 (D.C. Cir. 1969).

⁹ The Commission, in fact, suspended its usual deadline for filing comments and has accepted all comments up to the present.

to the public at the Commission's Washington, DC headquarters on January 24, 2005. Those attending the meeting, including the Mayor, presented their views and discussed their concerns about the LNG terminal proposal with Chairman Wood and Commissioner Kelly. ¹⁰

- 27. We are also denying the requests to consolidate this proceeding and to hold a comparative hearing. The Commission is a regulatory agency entrusted with the responsibility to review applications for specific proposals for individual terminal sites under section 3 of the NGA and NEPA as they are filed to ensure timely and efficient development of much needed natural gas infrastructure. We are considering such a specific proposal here. The Commission's role is to determine whether a proposed site is environmentally acceptable and safe, and to approve projects that are in the public interest. Nevertheless, regional issues and needs already play an important role in the Commission's decision-making process. The Commission's environmental review process in this application proceeding included analysis of reasonable alternative sites in New England, offered significant opportunity for public participation and comment, and involved substantial coordination in many areas with federal and state agencies and elected officials. After approximately two years of study, our analysis is complete, and we find that the public interest will be best served by acting now on Weaver's Cove's and Mill River's applications.
- 28. The City and the Attorney General's assertion that this situation is the same as in the *Northeast Pipelines* proceeding is misplaced. The situation here is considerably different. In 1987, the Commission had before it a large number (at one time over 100) applications for pipeline construction projects to serve the northeast United States. In *Northeast Pipelines*, the Commission explained that in many instances the applicants themselves had alleged that two or more of the existing proposals were mutually exclusive so that they were entitled to an *Ashbacker* comparative hearing. The Commission issued a notice consolidating the existing applications and inviting new ones for consideration along with the applications already filed. The notice stated that applications filed by a certain date would be evaluated as a class to determine which projects required a comparative hearing under *Ashbacker*; applications filed after that date would not be considered as competitive with, or mutually exclusive to, applications filed prior to that date. The Commission explained that its decision to employ this

¹⁰ A transcript of that meeting is part of the record in this proceeding.

¹¹ 40 FERC ¶ 61,087 at 61,237.

procedure arose in large part from its experience in the *Boundary Gas* proceeding ¹² where over a protracted period of time many competing applications and amendments to applications were filed on a comparative basis, resulting in considerable delay. In *Boundary Gas*, the Commission explained,

Under the rubric of *Ashbacker*, many participants at the Commission exercised their administrative prerogatives in a manner which turned the *Boundary* proceeding into an administrative procedural moving target, constantly evoking further applications, amendments to applications, counterproposals, and proposals to counter the counterproposals, to the point that scarcely any matter became ripe for adjudication for an extended period of time. ¹³

- 29. The Commission consolidated the proceedings to establish deadlines for filing new applications for consideration on a comparative basis so that it could assure that it acted efficiently and expeditiously and avoid the difficulties it encountered in *Boundary Gas*. The Commission did not consolidate the many applications because it was looking for the preferred or optimal project for the Northeast. Nor did the Commission aggressively solicit new applications. The Commission never intended to address all the applications in a single consolidated hearing. In fact, although the Commission initially consolidated the *Northeast Pipeline* applications into a single proceeding, thereafter it grouped certain proposals for comparative hearings and split off others as discrete, noncompetitive projects to be handled separately. The Commission did not hold an evidentiary hearing for any of those applications.
- 30. The City of Fall River and the Attorney General nevertheless assert that we should invite proposals for other projects and consider them along with the Weaver's Cove application. While there are other projects on the horizon in the development stage, we do not know at this point which, or if any, of these concepts will advance beyond that stage to an actual application with the Commission, or even which projects would be subject to our jurisdiction. On the other hand, we have before us here a project which the Commission has been analyzing for approximately two years. Especially in view of the substantial construction period necessary for LNG projects, the substantial environmental compliance that must occur, and the other permits that must be obtained before construction can even begin, we find that delaying disposition of this application in order to consider it with other proceedings not yet filed is neither necessary nor a viable approach to helping solve New England's recognized need for new gas supplies and the infrastructure to deliver those supplies.

 $^{^{12}}$ Boundary Gas, Inc., 40 FERC \P 61,088 (1987).

¹³ 40 FERC at 61,239.

- 31. Under the *Ashbacker* doctrine a hearing to compare proposals is required only when the proposals are mutually exclusive so that the approval of one proposal would require denial of another. In the past, traditional regulatory approach required careful comparison of competing proposals because only one could be granted. The monopolistic advantages conferred on the winner would effectively bar others from entering that market and, absent close oversight of the winner's rates and services, would leave consumers subject to exploitation. ¹⁴ It has been Commission policy for well over a decade, however, to permit the market to decide which projects are best suited to serve the infrastructure needs of an area. The Commission believes that approach best serves the public interest and allows for the most efficient, cost effective, and timely development of energy infrastructure. Approval of a variety of projects benefits the public by allowing it to choose which proposals offer the most attractive and timely service. Thus, we indeed invite additional proposals to provide natural gas to New England, but there is no reason to delay this proceeding for future projects to catch up.
- 32. The primary consideration before us here is whether the proposed Weaver's Cove facilities can be constructed and operated safely. We can evaluate the safety of this project by examining the project on its own merits because the safety of a project stands on its own, not necessarily in relation to other projects which may or may not satisfy the proposed objectives. NEPA's requirement that the Commission look at alternatives does not call for a comparative hearing, and we do not believe that a comparative hearing is necessary to carry out the Commission's safety responsibilities. A number of alternatives have been analyzed in the FEIS and, for reasons spelled out there and in this order, found not to be superior to the Weaver's Cove proposal. The City of Fall River and the Attorney General state that we should view New England's gas needs broadly and consider alternatives that would not involve transportation of LNG by truck. We have considered such alternatives, including potential offshore projects. The transportation of LNG by truck, however, is an important and appropriate goal of the proposed project that must be considered in evaluating the ability of alternatives to satisfy a purpose of the project proposed by the applicant. Truck deliveries of LNG can be accomplished only from an onshore storage facility. We have carefully studied all aspects of the safety of the Weaver's Cove proposal, and for reasons set forth below and in more detail in the FEIS, we are convinced that, if the project is constructed and operated in accordance with the conditions attached to our approval, the Weaver's Cove project will be safe.

¹⁴ See Islander East Pipeline Company, L.L.C., 100 FERC ¶ 61,276 (2002).

¹⁵ *Id.* at 62,109.

Requests for a Supplemental DEIS

- 33. Several parties and commentors ¹⁶ contend that the DEIS analysis of the environmental effects of the proposal is deficient, and they request that the Commission prepare a supplemental draft environmental impact statement. Collectively, they aver that the DEIS does not sufficiently address safety and security concerns related to locating an LNG terminal in a populated area or of transporting the LNG by ship to the terminal site. They also allege that the DEIS does not adequately address other environmental aspects of the proposed project such as the impacts from dredging on water quality, fish habitat, and the disposal of contaminated material on a site already undergoing environmental remediation, and other impacts related to air quality, wetlands, waterways, and recreation.
- 34. Under NEPA, the purpose of an environmental impact statement is to ensure that an agency, in reaching its decisions, will have available and will carefully consider, detailed information concerning significant environmental impacts; it also guarantees that the relevant information will be made available to the larger audiences that may play a role in both the decision-making process and the implementation of that decision.¹⁷ The draft EIS puts interested parties on notice of the types of activities contemplated and their impacts. By its very name, the DEIS is a draft of the agency's proposed final EIS (FEIS), and, as such, its purpose is to elicit suggestions for change.¹⁸ The DEIS thus serves as "a springboard for public comment."¹⁹
- 35. We do not believe that a supplemental DEIS is necessary. In response to our invitation, the Commission received a large number of comments on the DEIS from state and federal government agencies, environmental groups, and individuals. We have addressed each comment in the FEIS. In some cases, based on the comments to the DEIS, we requested additional material from Weaver's Cove. For example, we required Weaver's Cove to provide more information relating to such issues as dredging and the placement of dredged material on the proposed LNG terminal site, the construction and construction timing of the new Brightman Street bridge, and impacts and mitigation

¹⁶ The Governor of Massachusetts and several Massachusetts state agencies, the Attorney General of Rhode Island, the City of Fall River, the Somerset Conservation Commission, the U.S. Environment Protection Agency, the U.S. Department of the Interior, Save the Bay, Green Futures, and Merchant Mills, L.P.

¹⁷ See Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989).

¹⁸ City of Grapevine, Tex. v. Dep't of Transp., 17 F.3d 1502, 1507 (D.C. Cir. 1994).

¹⁹ See Robertson, 490 U.S. 332 (1989).

measures Weaver's Cove would implement with respect to wetland areas, water resources, fish habitat, vehicular traffic, and air quality. Regarding the Mill River pipelines extending from the tailgate of the LNG terminal, we requested information relating to horizontal directional drill and hydrostatic testing. The new material is addressed in the FEIS, and where appropriate, the FEIS modifies earlier recommendations for environmental conditions set forth in the DEIS. Since issuance of the DEIS, a comprehensive new study of LNG safety has been completed by the U.S. Department of Energy's (DOE) Sandia National Laboratories, *Guidance on Risk Analysis and Safety Implications of a Large Liquefied Natural Gas (LNG) Spill Over Water* (Sandia Report). We also have received comments from the United States Coast Guard regarding ship transit and port security matters. The FEIS includes relevant material from those sources.

36. We are confident that the FEIS, as supplemented from the DEIS, contains ample information needed for the Commission to consider and address fully the environmental impacts associated with the Weaver's Cove LNG terminal project and the associated pipelines. The new material included in the FEIS does not result in any significant modification of the project that requires additional notification to the public and revision of the DEIS for further public comment. Rather, the new material adds to the Commission's knowledge of impacts from certain aspects of the project and enables the Commission to refine its conditions mitigating those impacts on the environment. The environmental impacts from the project are discussed below.

Requests to Delay Commission Action Pending Action on Petition Filed with the United States Department of Transportation

- 37. In September 2004, the City of Fall River and the Attorneys General of Massachusetts and Rhode Island filed rulemaking petitions with the United States Department of Transportation (DOT) requesting that it modify its location standards for LNG facilities by requiring such facilities to be placed in remote areas away from population centers. They request the Commission to delay action on Weaver's Cove's application until DOT acts on their requests.
- 38. As part of the Pipeline Safety Act of 1979 (Pub. L. No. 96-129), Congress directed DOT to develop minimum safety standards for determining the location, design, and installation for new LNG facilities. Remote sites for such facilities were one of the factors DOT was to consider in adopting its standards.²⁰ DOT adopted comprehensive LNG safety standards in 1980. ²¹ Rather than requiring remote locations for all LNG

²⁰ 49 U.S.C. § 60103(a).

²¹ See 49 C.F.R. §§ 193.2051 et al.

facilities, ²² DOT instead adopted standards that it determined would better provide safe separation distances to protect the public in the vicinity of LNG facilities in the event of a spill. DOT's regulations establish thermal and flammable vapor dispersion exclusion zones, based on standards of the National Fire Protection Association, to protect persons and property from harm caused by heat radiation from fire and by dispersion and delayed ignition of gas vapor. DOT has not addressed the September 2004 rulemaking petitions, and we have no indication at this point that it is considering modification of its rules. Accordingly, we will process the proposal before us under the DOT regulations in place.

Massachusetts Environmental Review

- 39. On August 28, 2003, the Secretary of Environmental Affairs for the Commonwealth of Massachusetts (state agency) agreed to coordinate its environmental review of the proposed project under the Massachusetts Environmental Protection Act (MEPA) with the Commission's review of the project under NEPA to facilitate federal and state review of the project. Under the agreement, this Commission's DEIS and FEIS would serve as the pertinent environmental review documents under both statutes. The state agency, however, expressly reserved the right to evaluate the adequacy of the information in the DEIS and FEIS and to require Weaver's Cove to provide additional information considered necessary for resolution of issues under MEPA.
- 40. The state agency determined that in several areas the DEIS did not fully address how the project meets Massachusetts regulatory requirements, and it directed Weaver's Cove to provide additional information. Weaver's Cove submitted the information requested by the state in November 2004. Subsequently, on December 17, 2004, the state required Weaver's Cove to provide more information. Weaver's Cove indicated that it would comply with the state's directive.²³ The state has requested this Commission to delay the proceeding until the state completes its evaluation of the environmental issues under MEPA.

²² In addressing the remote siting issue in its rulemaking proceeding, DOT recognized the difficulty in predicting whether a remote location would remain remote during the operating life of an LNG facility. *See LNG Facilities; Federal Safety Standard, Notice of Proposed Rulemaking*, 44 Fed. Reg. 8142 (1979).

²³ See, letter dated February 22, 2005, from Weaver's Cove to Secretary Ellen Roy Herzfelder, Massachusetts Executive Office of Environmental Affairs.

41. Although the state environmental review remains ongoing, we have completed a comprehensive and detailed environmental review under NEPA pursuant to the guiding regulations of the Council on Environmental Quality²⁴. From our own investigations and consultation with and input from the public and a number of state and federal government agencies, we have ample information to assess the impacts of the proposed project on the environment and to adopt measures to mitigate those impacts appropriately under federal law.

<u>Protest and Request for Full Evidentiary Hearing by Shell Oil</u> <u>Products US</u>

- 42. Shell Oil Products US (Shell) filed a protest and request for hearing with its intervention. Shell or Shell affiliates formerly operated an oil refinery and fuel terminal facility on the site proposed for the Weaver's Cove LNG terminal. Shell sold the property to its current owner Jay Cashman, Inc. (Cashman) in 2000, but holds a continuing obligation to perform groundwater remediation under the Massachusetts Contingency Plan (MCP). Shell also holds an option to purchase the property from Cashman.
- 43. The deed conveying the subject property from Shell to Cashman created easements allowing Shell to perform its remediation, and established provisions restricting future use of the site and governing the rights of Shell, Cashman, and successors to Cashman's interests. The deed also gives Shell the right to impose additional restrictions on the use of the site in the future, including activity and use limitations (AULs) that Shell's Licensed Site Professional (LSP) determines are reasonably necessary to meet requirements of the MCP.

²⁴ 40 C.F.R. §§ 1500 et seq.

The MCP is a comprehensive regulatory program established by the Massachusetts Department of Environmental Protection to implement the Massachusetts Oil and Hazardous Material Release Prevention Act (Massachusetts General Laws, ch. 21E). One of the purposes of the MCP is the implementation of appropriate remedial actions to abate, prevent, remedy, or otherwise respond to a release or threat of release of oil and/or hazardous material (310 Code of Massachusetts Regulations (CMR) 40.0002(1)(a)(5)). Under the MCP, those responsible for cleaning up contamination hire a licensed site professional (LSP) to oversee most cleanups to ensure compliance with the MCP. The Massachusetts Contingency Plan is intended to complement the National Contingency Plan promulgated by the United States Environmental Protection Agency under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (310 CMR 40.002(4)).

- 44. Shell objects to the Weaver's Cove proposal to deposit material dredged from the Taunton River and New Hope Bay on the land proposed for the LNG terminal because it could possibly cause further contamination of soil on the site, adversely affect Shell's environmental remediation, and/or add significantly to the cost of that remediation. Shell suggests that it may be necessary to impose an AUL on the property to prevent further environmental damage to the site and to its remediation program by Weaver's Cove. Weaver's Cove states that its tests demonstrate that use of the dredged sediment on the site will not degrade the site as Shell contends. Weaver's Cove acknowledges that construction may increase Shell's remediation costs, but states that it will reimburse Shell for any incremental costs. Weaver's Cove also acknowledges that its construction activities must be consistent with the requirements of the MCP.
- 45. Shell states that the Commission should hold a full evidentiary hearing to address the issues concerning the effect of the Weaver's Cove proposal on the property in question and Shell's ongoing remediation. Such a hearing, it avers, would enable the parties, under the auspices of the Commission, to explore fully the potential ramifications of Weaver's Cove's dredging proposal on Shell's rights and obligations with respect to the site.
- 46. We have addressed the placing of dredged material on the proposed terminal site as part of our environmental review process under NEPA. To protect against any further deterioration of the site, Environmental Condition 18, for example, directs Weaver's Cove to verify that placement of the dredged material on the site will be consistent with the MCP. Shell, Weaver's Cove, and other parties have introduced ample material into the record for the Commission to resolve dredging issues without holding a trial-type hearing, and we will deny Shell's request for such a hearing. As explained above, trial-type evidentiary hearings are required only where there are material issues of fact in dispute that cannot be resolved on the basis of the written record.
- 47. The Commission recognizes that Shell and Weaver's Cove have different views on the proper interpretation of the deed provisions governing future activities on the site of the proposed terminal, and whether the deed permits the placing of dredged material on the site without the approval of Shell and its LSP. However, this Commission cannot resolve these questions, either with a trial-type hearing or on the basis of the record for this paper hearing. Interpretation of property deed restrictions is outside this Commission's expertise and jurisdiction. The meaning and application of provisions in this deed are a matter of Massachusetts property and contract law within the province of a Massachusetts state court. Shell has stated that it does not believe that its remedial obligations pose an insurmountable obstacle to the LNG project and it has described conditions that it would find acceptable for use of the site for the LNG terminal. Shell and Weaver's Cove have been engaged in negotiations aimed at reaching agreement over Weaver's Cove's dredging plan. We urge that the parties continue these efforts so that

the project can move forward.²⁶ We will condition any construction on the proposed site, however, upon resolution of this issue, either by an agreement of the parties, or by a decision of a court of appropriate jurisdiction.

Discussion

The Weaver's Cove LNG Terminal Facilities

48. Because the proposed LNG terminal facilities will be used to import natural gas from a foreign country, the construction and operation of the facilities and the location of the facilities require approval by the Commission under section 3 of the NGA. The Commission's authority over facilities constructed and operated under section 3 includes the authority to apply terms and conditions as necessary and appropriate to ensure that the proposed construction and siting is in the public interest.²⁷ Section 3 provides that the Commission "shall issue such order on application ... unless it finds that the proposal "will not be consistent with the public interest." ²⁸

²⁶ When the Commission issues a certificate under section 7 of the NGA to construct pipeline facilities, the certificate provides the right for the pipeline company to acquire property for an easement for the pipeline, either through negotiation with the landowner, or through eminent domain procedures should negotiation not result in an agreement. Authorizations of projects under NGA section 3 do not convey such rights to acquire eminent domain.

²⁷ Distrigas Corporation v. F.P.C., 495 F.2d 1057, 1063-64, cert. denied, 419 U.S. 834 (1974); Dynegy LNG Production Terminal, L.P., 97 FERC ¶ 61,231 (2001).

²⁸ The regulatory functions of section 3 of the NGA were transferred to the Secretary of Energy in 1977 pursuant to section 301(b) of the Department of Energy Organization Act (Pub. L. No. 95-91, 42 U.S.C. § 7101 *et seq*). The Secretary subsequently delegated to the Commission the authority to approve or disapprove the construction and operation of import and export facilities and the site at which such facilities shall be located. DOE Delegation Order No. 00-004.00, 67 *Fed. Reg.* 8,946 (2002).

- 49. The Commission has determined that it is appropriate to exercise a less intrusive degree of regulation for LNG import terminals, and does not require the applicant to offer open-access service or to maintain a tariff or rate schedules for its terminal service. However, the Commission reserves the authority under section 3 to take any necessary and appropriate action if it receives complaints of undue discrimination or anticompetitive behavior.
- 50. The Commission recognizes the important role that LNG will play in meeting future demand for natural gas in the United States and has noted that the public interest is served through encouraging gas-on-gas competition by introducing new imported supplies.³⁰ The record in this case shows that the Weaver's Cove LNG terminal will provide such additional supplies of natural gas to consumers.
- The LNG terminal facilities proposed here will enable the introduction of new gas 51. volumes from new sources of supply into the New England area where substantial market growth is expected. The March 2005 Governors Conference Report found that an onshore LNG facility the size and scope of the proposed Weavers Cove facility would contribute significantly to reserve margins and service reliability because it can provide additional storage in an area that is critically dependent on storage to meet peak day gas demands. Moreover, because the facility will be located near existing major interstate pipeline facilities, only minimal new pipeline construction will be required to connect the LNG terminal with the interstate pipeline system. The location of the terminal will ensure ready access to local and regional markets and to substantial gas-fired generating capacity along the Algonquin system. Another significant aspect of the proposal is that the terminal's location will facilitate deliveries of LNG by motor carrier to LNG peak shaving storage facilities and other customers across New England. Weaver's Cove is also a new entrant to the LNG business in the United States with no existing customers that might be adversely affected by the costs or risks of recovery of the costs associated with the proposed terminal facility. The economic risks will be borne by Weaver's Cove. Thus, we find that approval of the Weaver's Cove LNG terminal facilities will be consistent with the public interest.

²⁹ See Hackberry LNG Terminal, L.L.C., 101 FERC \P 61,294 (2002), order issuing certificates and granting reh'g, 104 FERC \P 61,269 (2003).

³⁰ *Hackberry LNG*, 101 FERC ¶ 61,294 at P 26 (2002).

The Mill River Pipeline Facilities

52. Because the proposed pipeline facilities will be used to transport natural gas in interstate commerce subject to the jurisdiction of the Commission, their construction and operation are subject to the requirements of section 7(c) of the NGA

A. The Certificate Policy Statement

- 53. On September 15, 1999, the Commission issued a Policy Statement³¹ providing guidance as to how proposals for certificating new construction will be evaluated. Specifically, the Policy Statement explains that the Commission, in deciding whether to authorize the construction of new pipeline facilities, balances the public benefits against the potential adverse consequences. Our goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, the avoidance of unnecessary disruptions of the environment and the unneeded exercise of eminent domain in evaluating new pipeline construction.
- 54. Under this policy the threshold requirement for existing pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from the existing customers. The next step is to determine whether the applicant has made efforts to eliminate or minimize any adverse effects the project might have on the applicant's existing customers, existing pipelines in the market and their captive customers, or landowners and communities affected by the route of a new pipeline. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, the Commission will evaluate the project by balancing the evidence of public benefits to be achieved against the residual adverse effects. This is essentially an economic test. Only when the benefits outweigh the adverse effects on economic interests will the Commission then proceed to complete the environmental analysis where other interests are considered.
- 55. The two Mill River pipeline laterals will permit connection of the Weaver's Cove LNG facilities to Algonquin's pipeline system and thus bring about the benefits of the LNG terminal facilities described above. Mill River does not own any other pipeline facilities, and is not engaged in the transportation of natural gas. The laterals will serve new market demand and provide public benefits without subsidies and without adverse impact on existing pipelines or customers. The total length of the two laterals will be

³¹Certification of New Interstate Natural Gas Pipeline Facilities (Policy Statement), 88 FERC & 61,227 (1999); Order Clarifying Statement of Policy, 90 FERC & 61,128 (2000); Order Further Clarifying Statement of Policy, 92 FERC & 61,094 (2000).

slightly longer than six miles, and to minimize impact on landowners and the surrounding communities, the lines will run primarily along existing utility rights-of-way. We find that the benefits from Mill River's proposal will outweigh any potential adverse effects, and that the proposed pipeline laterals are required by the public convenience and necessity.

B. Rates

a. Cost and Financing

56. Mill River estimates that the total capital cost of constructing its proposed laterals and appurtenant facilities will be approximately \$37 million. Mill River proposes to utilize an imputed initial capital structure of forty percent (40%) equity and sixty percent (60%) debt. Mill River estimates its debt cost to be eight percent (8%) and, in consideration of all of its risk factors, proposes an initial return on equity in its recourse rates of fourteen percent (14%). Mill River's weighted average cost of capital under its proposed capital structure is 10.40 percent. Mill River proposes to finance the project permanently using generally available funds. We find the proposed capital structure and its proposed financing for the project reasonable for a new pipeline entity like Mill River. Mill River's proposed 14% return on equity is consistent with other recent projects approved by the Commission. ³²

b. Service and Rates

- 57. Mill River proposes to offer both firm and interruptible services on an open access, nondiscriminatory basis pursuant to Part 284 of the Commission's regulations, with services available at both recourse and negotiated rates.
- 58. Mill River proposes to offer firm transportation service under Rate Schedule FT, and seeks the authority to negotiate with shippers, on a nondiscriminatory basis, rates for firm service that deviate from its maximum recourse Rate Schedule FT rates.

 Mill River's Rate Schedule FT recourse rate is a traditional cost-of-service based rate, designed under the straight fixed variable (SFV) method, based on 100 percent of Mill River's base load operation design capacity (400,000 Dth per day). Mill River's maximum reservation recourse rate for Rate Schedule FT service is \$1.347 per Dth per month, and its maximum rate for Rate Schedule IT service is \$0.044 per Dth (designed as a 100 percent load factor of the Rate Schedule FT rate).

³² See Cheniere Sabine Pass Pipeline Company, 109 FERC ¶ 61,324 (2004); Tractebel Calypso Pipeline, LLC, 103 FERC ¶ 61,106 (2003); Millennium Pipeline Company, L.P., 100 FERC ¶ 61,277 (2002); and Islander East Pipeline Company, L.L.C., 97 FERC ¶ 61,363 (2001).

- 59. Mill River's proposed General Terms and Conditions (GT&C) provide for the negotiation, on a nondiscriminatory basis, of rates that differ from Mill River's generally applicable recourse rates. Mill River agrees to comply with the Commission's regulations and policies pertaining to negotiated rates.
- 60. During its open season, Mill River offered to all interested shippers the option to elect recourse rates based on the traditional cost-of-service and SFV rate design or, on a nondiscriminatory basis, to elect negotiated rates. In the precedent agreement, the subscribing shipper has selected a maximum recourse rate agreement.
- 61. Mill River's proposed rates are consistent with traditional SFV design. However, Mill River used 400,000 Dth per day billing determinants to calculate its proposed FT reservation rate of \$1.347 per Dth and proposes a \$0.044 per Dth usage rate for the Rate Schedule ITS interruptible transportation calculated as a 100 percent load factor derivative of the Rate Schedule FT rates. The Commission's engineering analysis finds that Mill River's two proposed 24-inch laterals will be capable of transporting 836,000 Dth per day of regasified LNG from the Weaver's Cove LNG terminal into Algonquin's G-System. Commission precedent generally dictates the use of actual design capacity for rate design purposes, and a pipeline is placed at risk for the costs of unsubscribed capacity based on the actual capacity. Accordingly, Mill River must calculate both its FT and IT rates using billing determinants equal to the design capacity of 836,000 Dth per day. Using this figure, Mill River's FT reservation rate should be \$0.644 per Dth, and its IT rate should be \$0.021. We direct Mill River to revise its FT reservation rate and its IT rate accordingly.
- 62. Mill River does not propose to allocate any costs to its interruptible services, nor does Rate Schedule IT contain a mechanism for the crediting of IT revenues. The Commission's policy regarding new interruptible services requires either a 100 percent credit of the interruptible revenues, net of variable costs, to firm and interruptible customers or an allocation of costs and volumes to these services.³⁴ Accordingly, we will require Mill River either to allocate an appropriate level of the estimated cost of service to interruptible services and recalculate its rates, or alternatively, to provide a mechanism to credit 100 percent of IT revenues to its firm and interruptible shippers.

³³ See Crossroads Pipeline Company, 71 FERC ¶ 61,076 at 61,264 (1995).

³⁴ See, e.g., Tractebel Calypso Pipeline, LLC, 106 FERC ¶ 61,273 (2004).

- 63. We also find that Mill River's proposal to offer negotiated rates conforms to the guidelines for negotiated rates as articulated in the Commission's Alternative Rate Policy Statement.³⁵ Under that policy, revenue shortfall due to the lower negotiated rates cannot be recovered from existing shippers.³⁶ Commission policy, therefore, is to permit negotiated rates at lower than recourse rates in all cases, even to affiliates, and not only when lower rates are needed to compete for business. Accordingly, we will approve Mill River's proposal, subject to Mill River's maintaining separate and identifiable accounts for volumes transported, billing determinants, rate components, surcharges and revenues associated with its negotiated rates and keeping such information in sufficient detail so that it can be identified in future rate cases. Mill River's negotiated rate authority is also subject to the Commission's policies protecting the recourse rate-paying shippers against inappropriate cost shifting with negotiated rates and discount adjustments, and regarding deviations in a negotiated rates agreement from the form of service agreements in Mill River's tariff.³⁷
- 64. Consistent with Commission precedent, the Commission will require Mill River to file a cost and revenue study at the end of its first three years of actual operation to justify its existing cost-based firm and interruptible recourse rates. In its filing, the projected units of service should be no lower than those upon which Mill River's approved initial rates are based. The filing must include a cost and revenue study in the form specified in section 154.313 of the regulations to update cost of service data. After reviewing the data, we will determine whether to exercise our authority under NGA section 5 to establish just and reasonable rates. In the alternative, in lieu of this filing, Mill River may make an NGA section 4 filing to propose alternative rates to be effective no later than 3 years after the in-service date for its proposed facilities.

³⁵ Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines and Regulation of Negotiated Transportation Services of Natural Gas Pipelines, 74 FERC ¶ 61,076 (1996), reh'g and clarification denied, 75 FERC ¶ 61,024 (1996), reh'g denied, 75 FERC ¶ 61,066 (1996); petition for review denied, Burlington Resources Oil & Gas Co. v. FERC, Case No. 96-1160, et al., U.S. App. Lexis 20697 (D.C. Cir. July 20, 1998).

 $^{^{36}}$ NorAm Gas Transmission Co., 77 FERC \P 61,011 (1996), order on reh'g, 81 FERC \P 61,204 (1997).

³⁷ See Energy West Development, Inc., 103 FERC ¶ 61,015 (2003).

 $^{^{38}}$ See, e.g., Trunkline LNG Co., 82 FERC ¶ 61,198, at p. 61,780 (1998), aff'd sub nom, Trunkline LNG Co. v. FERC, 194 F.3d 68 (D.C. Cir. 1999); Horizon Pipeline Co., L.L.C., 92 FERC ¶ 61,205, at p. 61,687 (2000); Vector Pipeline Company, 85 FERC ¶ 61,083 (1998).

c. Pro Forma Tariff Issues

- 65. Mill River proposes to provide open access transportation pursuant to its pro forma tariff. 39 Mill River asserts that its proposed GT&C meet or exceed the applicable requirements of Order No. 636, as well as the standards recommended by the North American Energy Standards Board and adopted by the Commission; however, its application contains no mention of its compliance with Order No. 637. Accordingly, we direct Mill River to file a detailed narrative explaining how the tariff conforms to the applicable provisions of Order No. 637, a chart identifying how it complies with the NAESB Standards and Definitions (including standards governing nominations, flowing gas, invoicing, electronic delivery mechanisms and capacity release), and the location of the NAESB Standards as incorporated verbatim or by reference in Mill River's tariff. On May 9, 2005, the Commission issued Order No. 654 amending its regulations, which among other things, adopted Version 1.7 of the NAESB standards. 40 Therefore, when it files actual tariff sheets in this proceeding, Mill River must revise its tariff to be compliant with Order No. 654, as modified by any future NAESB requirements then in effect.
- 66. Also, in Part 358 of the Regulations, the Commission adopted new standards of conduct to ensure that transmission providers cannot extend their market power over transmission by giving energy affiliates unduly preferential treatment. Mill River must revise its *pro forma* tariff to comply with the standards of conduct requirements in Order No. 2004.

³⁹ The tariff sheets in Mill River's *pro forma tariff* do not contain the borders required by section 154.101 of the Commission's regulations. When Mill River files its actual tariff, it must comply with the Commission's regulations with regard to the form of tariff sheets.

⁴⁰ Standards For Business Practices of Interstate Natural Gas Pipelines, Order No. 654, 111 FERC ¶ 61,203 (2005) (amending the regulations to incorporate by reference the most recent version of the standards: Version 1.7 of the consensus standards promulgated December 31, 2003 by the Western Gas Quadrant (WGQ) of the NAESB; the standards ratified by NAESB on June 25, 2004 to implement Order 2004; the standards ratified by NAESB on May 3, 2005 to implement the Order 2004-A; and the standards implementing gas quality requirements ratified by NAESB on October 20, 2004).

⁴¹Standards of Conduct for Transmission Providers, Order No. 2004, 68 Fed. Reg. 69,134 (December 11, 2003), III FERC Stats. & Regs. ¶ 31,155 (2003), order on reh'g, Order No. 2004-A, 69 Fed. Reg. 23,562 (April 29, 2004), III Stats. & Regs. ¶ 31,161 (2004).

67. Section 21.4 of the GT&C contains Mill River's creditworthiness standards. The Commission finds the tariff language in Section 21.4(b) is vague with respect to how Mill River will evaluate a shipper's creditworthiness if said shipper is not rated by Dun & Bradstreet. The proposed language in that section allows Mill River too much discretion in determining creditworthiness and does not meet the Commission's requirement that criteria for determining creditworthiness must be clear and objective and not unduly discriminatory. Therefore, consistent with our ruling in *Tennessee Gas Pipeline Company*, we will require Mill River to revise Section 21.4(b) to include the objective financial analyses and criteria it will use to determine a shipper's creditworthiness. If Mill River intends to find a shipper creditworthy that does not have a credit rating, it must state in its tariff what it will rely upon to determine that a shipper's financial position is acceptable. In *Natural Gas Pipeline Company of America*, we stated that it is important that the creditworthiness evaluation process be open and objective.

C. Accounting

a. <u>Book Depreciation Rate</u>

68. For financial accounting purposes, Mill River proposes a straight-line depreciation rate of 3.33 percent per annum based upon a 30-year life. Mill River's use of straight-line depreciation is consistent with the Commission's Uniform System of Accounts because it is a systematic and rational depreciation method. Therefore, the Commission approves the use of a 3.33 percent depreciation rate for Mill River.

b. Allowance for Funds Used During Construction

69. An allowance for funds used during construction (AFUDC) is a component part of the cost of constructing Mill River's facilities. Gas Plant Instruction 3(17)⁴⁵ prescribes a formula for determining the maximum amount of AFUDC that may be capitalized as a component of construction cost. That formula, however, is not applicable here, as it uses prior year book balances and cost rates of borrowed and other capital that either do not exist or could produce inappropriate results for initial construction projects of newly created entities such as Mill River.

⁴² 102 FERC ¶ 61,075 at P 41 (2003).

⁴³In recent orders, the Commission has approved a range of criteria for determining creditworthiness which it considers clear and objective, while allowing a service provider to exercise discretion in its determination. *See, e.g., Gulf South Pipeline Co., LP*, 107 FERC & 61,273 at P 20 (2004).

⁴⁴ 102 FERC & 61,355 at P 69 (2003).

⁴⁵ 18 C.F.R. Part 201.

- 70. In the application, Mill River states that it will finance construction using generally available funds, and estimates the capitalized AFUDC to be \$1,014,000. In additional information provided, Mill River indicates that no equity AFUDC was included in its calculation. Mill River states that the entire AFUDC amount included in the filing related only to debt cost at 4.8 percent during the construction period. Mill River states that it expects that once an equity rate of return is established for the proposed pipeline, this approved rate would be used in the calculation of actual equity funds used during construction. As a result, we cannot determine from the information provided whether Mill River's AFUDC methodology will result in an appropriate determination of the cost of funds used during construction for this project.
- 71. In similar cases, the Commission has required the applicant to limit its AFUDC rate to a rate no higher than it could earn on operating assets. The Commission limited the maximum amount of AFUDC that the pipeline could capitalize by limiting the AFUDC rate to a rate no higher than the overall rate of return underlying its recourse rates. Additionally, the Commission required that the equity portion percentage of the AFUDC rate capitalized not exceed the equity percentage of its capitalization structure.
- 72. We will therefore require Mill River to revise its AFUDC methodology to ensure that its maximum AFUDC rate for the entire construction period is no higher than the overall rate of return underlying its recourse rates. Further, Mill River must use its actual cost of debt (short-term and long-term) in the determination of its AFUDC rate, if it results in an AFUDC rate lower than the overall rate of return underlying its recourse rates.

D. Engineering

73. We have reviewed and analyzed the flow diagrams and flow information submitted with Mill River's application filed on December 19, 2003. Our analysis confirms that Mill River has properly designed its two laterals (North Lateral and West Lateral) to transport up to 836,000 Dth per day of regasified LNG supplies from the Weaver's Cove LNG Terminal to the proposed interconnects with Algonquin's G-System. The analysis shows that, individually, each lateral is capable of providing the firm transportation requirements for Metis, the subscribing shipper, of 400,000 Dth per day. We agree with Mill River, moreover, that constructing two 24-inch diameter laterals will provide increased operational reliability and flexibility for the regasified LNG supplies to enter Algonquin's G-System.

⁴⁶ See Gulfstream Natural Gas System, L.L.C., 91 FERC ¶ 61,119 (2000) and Buccaneer Gas Pipeline Company L.L.C., 91 FERC ¶ 61,117 (2000).

- 74. Next, we also examined the ability of Algonquin's G-System to receive the regasified LNG from the proposed interconnects. That analysis showed that the existing 750 psig MAOP (maximum operating pressure) of Algonquin's 16-inch G-20 Lateral and the 20-inch G-22 Lateral was too low to displace the gas volumes in the G-System under design conditions. For the entire 836,000 Dth per day of regasified LNG to enter Algonquin's G-System at operating pressures experienced under design conditions, Algonquin will need to uprate the MAOP of certain pipe segments of its G-System. Specifically, Algonquin will have to uprate: (1) the MAOP from 750 psig to 980 psig for 3.5 miles of its 16-inch diameter pipeline on the G-20 Lateral; and (2) the MAOP from 750 psig to 970 psig for 8.4 miles of its 20-inch diameter pipeline on the G-22 Lateral. With these modifications, our analysis shows that the entire 836,000 Dth per day could flow into Algonquin's G-System as a new source of supply. These results were confirmed by Algonquin's, Mill River's and Weaver's Cove's response to staff's March 2, 2004 data requests. And the specific of the Algonquin's confirmed by Algonquin's of the specific of the specific of the staff's cove's response to staff's March 2, 2004 data requests.
- 75. Based upon design conditions, Algonquin's load requirements on its G-System are less than the 836,000 Dth per day which would be supplied by the Weaver's Cove LNG terminal through Mill River's two laterals. The excess supplies, therefore, could be delivered to and made available at Algonquin's G-System interconnect with its mainline. Currently, however, Algonquin's system only has about 35,500 Dth per day of unsubscribed mainline capacity upstream of the G-System. Without additional unsubscribed capacity downstream of its G-System, Algonquin would not be able to transport the excess regasified LNG supply on its mainline facilities. Without more specific information regarding potential shippers and location of delivery points, we cannot determine if additional mainline facilities would be required to effectuate delivery

⁴⁷ On March 12, 2004, Algonquin, Mill River and Weaver's Cove stated that an uprate of the existing 750 psig MAOP on Algonquin's G-20 and G-22 laterals is required in order to accommodate the entire 836,000 Dth per day of regasified LNG service.

⁴⁸ As of February 1, 2004, Algonquin's electronic bulletin board reflects only 35,455 Dth per day of unsubscribed mainline capacity under Rate Schedule AFT-1 (X-38) from the Columbia Gas interconnect with Algonquin at Hanover (Meter 240) to US Gen New England at the Manchester Street delivery point on Algonquin's G-System (Meter 087).

of regasified LNG downstream of the G-System's interconnect with Algonquin's mainline.⁴⁹ Nevertheless, we note, that even without mainline capacity, Algonquin could transport the regasified LNG through displacement/backhaul or as a alternate supply source for an existing shipper.

76. In sum, we conclude that Mill River's proposed North and West Laterals are properly designed to provide up to 836,000 Dth per day of regasified LNG to Algonquin's G-System.

Environmental Review

- 77. On May 20, 2005, our staff issued a final Environmental Impact Statement (FEIS) for the Weaver's Cove LNG project.⁵⁰ Approximately 1,600 copies of the FEIS were mailed to agencies, groups, and individuals on the mailing list. The FEIS addresses the environmental and safety aspects of the proposed projects, and we adopt its analysis and its recommendations as our own.
- 78. The FEIS analyzed both the Weaver's Cove LNG Terminal and the Mill River lateral pipelines, and addressed the project's purpose and need, alternatives, geology, soils and sediments, water resources, wetlands and vegetation, wildlife and aquatic resources, federally listed species, land use, socioeconomics, cultural resources, air quality and noise, safety, and cumulative impacts. The National Marine Fisheries Service (NOAA Fisheries), the U.S. Coast Guard, the U.S. Environmental Protection Agency (EPA), and the United States Army Corps of Engineers (COE) were cooperating agencies in the preparation of the FEIS.
- 79. The FEIS addressed comments from individuals, organizations, companies, and local authorities who attended public meetings held by the Commission in Swansea, Massachusetts on September 8 and in Middletown, Rhode Island on September 9, 2004. Sixty-seven people provided comments at these two meetings. In addition, the FEIS also addressed 729 comment letters in response to the DEIS (554 of these letters were mass mailings such as comment cards or form letters). There has been considerable

⁴⁹ In their responses to staff's data request on March 4, 2004, Algonquin, Mill River and Weaver's Cove claim that since specific delivery points have not been identified by either Mill River or Weaver's Cove, hydraulic studies examining Algonquin's take-away capacity have not been evaluated.

⁵⁰ On May 27, 2005, the U.S. Environmental Protection Agency published a Notice of Availability of the FEIS in the *Federal Register*.

⁵¹ We issued the draft EIS on July 30, 2004.

opposition to the proposed project by elected and other public officials, municipality representatives, special interest groups, and members of the public. The commentors' primary concern related to public safety regarding both the LNG terminal and the LNG vessel transit along the federal navigation channel through Narragansett Bay, Mount Hope Bay, and the Taunton River. Because of these safety concerns, numerous commentors' expressed their preference that Weaver's Cove develop its LNG project offshore. The FEIS addressed both the safety concerns and offshore alternatives.

- 80. The FEIS evaluated the safety of both the proposed Weaver's Cove LNG Project LNG import terminal facility and the related LNG vessel transit through Narragansett Bay to Fall River. The analysis identified the principal properties and hazards associated with LNG, presented a summary of the design and technical review of the cryogenic aspects of the LNG terminal, discussed the types of storage and retention systems, analyzed the thermal radiation and flammable vapor cloud hazards resulting from credible LNG spills, analyzed the safety aspects of LNG transportation by ship, and reviewed issues related to security and terrorism.
- 81. With respect to the onshore facility, a cryogenic design and technical review of the proposed terminal design and safety systems was completed and reported in the FEIS. That review noted several areas of concern, and as a result, in Environmental Conditions 33 through 42 we are requiring Weaver's Cove to make certain modifications to its terminal design prior to construction. The FEIS also evaluated the thermal radiation and flammable vapor dispersion exclusion zones of the proposed LNG terminal. The analysis found that no excluded uses are within these areas, although a small section of the thermal exclusion zone would extend off the property. To address the section extending off the property, Environmental Condition 40 requires that Weaver's Cove demonstrate legal control over this area, or secure a waiver from the DOT, before Weaver's Cove is given any authority to begin construction.
- 82. In addition, the FEIS included an analysis of DOE's December 2004 Sandia Report evaluating the consequences of an LNG spill on water. The report evaluated an LNG cargo tank breach using modern finite element modeling and explosive shock physics modeling to estimate a range of breach sizes for credible accidental and intentional LNG spill events. Based on the Sandia Report, thermal radiation and flammable vapor hazard distances were calculated in the FEIS for an accident or an attack on an LNG vessel. For the nominal intentional breach scenarios (2.5-meter and 3-meter diameter holes in an LNG cargo tank), the estimated distances ranged from 4,340 to 4,810 feet respectively, for a thermal radiation level of 1,600 British thermal unit per feet squared per hour (Btu/hr-ft²), the threshold level at which the thermal radiation becomes hazardous to unprotected persons located outdoors.

- 83. As explained in the FEIS, the evaluation of safety is more than an exercise in calculating the consequences of worst case scenarios. Rather, it is a determination of the acceptability of risk which considers: the probability of events; the effect of mitigation; and the consequences of events. Based on the extensive operational experience of LNG shipping, the structural design of an LNG vessel, and the operational controls imposed by the Coast Guard and the local pilots, a cargo containment failure and subsequent LNG spill from a vessel casualty collision, grounding, or allision is highly unlikely. For similar reasons, an accident involving the onshore LNG import terminal or LNG trucking from the terminal is unlikely to affect the public. As a result, the FEIS determined that the risk to the public from accidental causes is negligible.
- 84. Unlike accidental causes, historical experience provides little guidance in estimating the probability of a terrorist attack on an LNG vessel or onshore storage facility. For a new LNG import terminal proposal having a large volume of energy transported and stored near populated areas, the perceived threat of a terrorist attack is a serious concern of the local population and requires that resources be directed to mitigate possible attack paths. While the risks associated with the transportation of any hazardous cargo can never be entirely eliminated, we are confident that they can be reduced to minimal levels and that the public will be well protected from harm.
- 85. The Coast Guard recently completed a series of project-specific security workshops with port stakeholders and federal, state, and local agencies. The workshop participants identified measures that would be necessary to manage the risks associated with LNG traffic responsibly. These measures complement the Maritime Transportation Security Act regulations enacted on July 1, 2004. The Coast Guard has identified protocols to mitigate specific risks and created an initial Vessel Transit Security Plan, which will become the basis for appropriate security measures for each Maritime Security threat level. Prior to an LNG vessel's being granted permission to enter Narragansett Bay, both the vessel and the facility will need to be in full compliance with the appropriate requirements of the Maritime Transportation Security Act and International Ship and Port Security Code, and the security protocols established by the Captain of the Port in the Vessel Transit Security Plan. In addition, the resources required to implement the security protocols would have to be in place before the Coast Guard would allow any LNG vessel access to the port.
- 86. On June 23, 2005, the City of Fall River and the Attorney General of Massachusetts requested that the Commission require Weaver's Cove to prepare the comprehensive waterway suitability assessment as provided for in the Coast Guard's *Navigation and Vessel Inspection Circular* No. 05-05, *Guidance on Assessing the Suitability of a Waterway for Liquefied Natural Gas(LNG) Marine Traffic* (NVIC).⁵²

 $^{^{52}}$ NVIC was issued by the Coast Guard on June 14, 2005, and made available to the public on June 20, 2005.

Weaver's Cove has already submitted a waterway suitability assessment, which was used by the Coast Guard in the development of the Vessel Transit Security Plan for the Weaver's Cove project. In fact, although NVIC was issued after the Weaver's Cove Vessel Transit Security Plan, the procedures used by the Coast Guard in developing the Vessel Transit Security Plan for this proceeding are the basis for NVIC, and the Weaver's Cove Vessel Transit Security Plan complies with NVIC in all material respects. Further, Environmental Condition 75 requires annual updates of Weaver's Cove's waterway suitability assessment for the project.

- 87. On May 18, 2005, Patrick Lynch, Rhode Island Attorney General, filed a letter urging the Commission to dismiss the Weaver's Cove application based on a recent report prepared by Richard Clarke, LNG Facilities in Urban Areas (Clarke Report). 53 The Clarke Report's key findings are that traditional risk management calculations are insufficient to deal with the security risk posed by terrorist groups because the probability of a terrorist attack cannot be effectively measured. Instead, says the report, security risk management methodology should examine five factors: intent, capabilities, vulnerabilities, consequences, and recovery. The net assessment of the report is that while there is no adequate way to determine the probability of an attack on a proposed urban LNG facility and inland waterway transit, there are adequate grounds to judge that such an attack would be consistent with terrorists' demonstrated intent and capability. The report states further that there is also a basis to judge that likely enhanced security measures would not significantly reduce the risk, and to conclude a high risk of catastrophic damage. The report makes a general finding that siting the LNG facility in a non-urban setting would reduce the incentive for a terrorist attack. We have reviewed the Clarke Report carefully, but find, as discussed below, that it does not warrant a change in our conclusions that the Weaver's Cove project will be well protected.
- 88. Section 1 of the Clarke Report, a background and threat analysis, reviews a wide selection of articles published in journals, newspapers, and books stating that terrorists intend to kill large numbers of Americans, disrupt the U.S. economy and infrastructure, and damage oil and gas infrastructure. According to the report, reasons for a terrorist attack on an LNG tanker or facility include the potential for high civilian casualties and substantial damage to the American economy. As LNG imports become a more important sector of the economy, the report posits, terrorist organizations will be more interested in attacking them.

⁵³ The Clarke Report focuses on the KeySpan LNG, L.P. application in Docket No. CP04-223-000 *et al.* and waterways within Rhode Island, but the Attorney General states that its findings relate equally to the Weaver's Cove proposal. The Clarke Report is available on the internet at www.riag.ri.gov.

- 89. The concerns expressed in Section 1 of the Clarke Report are not unique to LNG but could equally apply to many other liquid or gaseous fuels and chemicals. The Clarke Report does not identify specific evidence of LNG threats. Indeed the Department of Homeland Security document, *National Planning Scenarios*, referenced on page 26 of the report, presents a number of high-casualty scenarios for attacks on other industry sectors. Regardless of what terrorist intent can be deduced from news articles and publications, the Coast Guard security workshops referenced above considered a terrorist attack, and devised methods to protect the LNG vessel from credible scenarios. There also is no support in the Clarke Report for the conclusion that terrorist organizations will be more interested in attacking LNG terminals as LNG imports become a more important sector of the economy. In fact, additional terminals and LNG vessels would provide redundancy in case a ship or terminal were out of service and thereby lessen the potential economic impact.
- 90. Section 2 of the Clarke Report examined seven attack scenarios on an LNG tanker in Narragansett Bay: aircraft, stand-off weapons, mortars, shaped charges, small boat, divers, and mines. The report found that an LNG vessel transiting the Narragansett Bay is susceptible to a number of potential terrorist threats, with the most probable/most effective to be a small boat attack, followed by a medium rocket and a small rocket. LNG cargo tank hole sizes for the most credible threats, stated the report, have a reasonably expected size of 5 square meters, but ranged from 2 to 12 square meters. The report also found that a pool fire is the most likely scenario to cause major deaths.
- 91. The Coast Guard's security workshops identified above considered a similar range of credible attack scenarios, including the types of attacks in Section 2 of the Clarke Report. For each credible scenario, procedures were developed with port stakeholders and law enforcement officials to provide suitable afloat, underwater, landside, and aviation security or surveillance capabilities. The outcome of the workshops was the Vessel Transit Security Plan. Although the details of the plan are classified as Security Sensitive Information, the general measures were identified in the FEIS. The finding in the Clarke Report that the likely enhanced security measures would not significantly reduce the high risk of catastrophic damage was made without the benefit of the Coast Guard workshops that led to the Vessel Transit Security Plan.
- 92. Section 3 of the Clarke Report on consequence management addresses potential injuries, fatalities, and damage to infrastructure that could result from an attack scenario. The Clarke Report states that it considered the flammable vapor and thermal radiation hazards created by an intentional breach of two cargo tanks each with a 5-meter diameter hole and a third tank breached by cascading damage, consistent with the vulnerabilities outlined in Section 2 of the report. However, a three tank breach as described in the preceding sentence is not consistent with the vulnerabilities outlined in Section 2 of the

report. The credible threat scenarios identified there would likely result in a single cargo tank breach. Thus, the thermal hazard zones presented in Section 3 of the Clarke Report are overstated, reflecting the consequences of the 5 square meter, 3-tank breach from the Sandia Report.

- 93. We believe that many of the attack scenarios presented in Section 2 of the report would likely yield damages on the low end of the scale, and even those judged most probable/most effective would have fewer consequences than projected in Section 3. In fact, the Sandia Report found that in most cases intentional breaching scenarios would not result in a hole of more than 5 to 7 square meters, which is a more appropriate range for calculating potential hazards from spills. Nevertheless, the Clarke Report leaves the misimpression that any successful attack will yield a worst case consequence scenario.
- 94. The FEIS evaluated the 21-mile-long LNG vessel route to the Weaver's Cove facility for areas of development within the transient thermal hazard area for the nominal 5 to 7 square meter intentional breach scenarios. We believe these scenarios are more realistic than the worst case scenario examined in the Clarke Report; however, we do recognize that they represent a high consequence event for a successful worst case terrorist attack.
- 95. In response to the DEIS, commentors expressed concern that local communities would have to bear a portion of the costs of ensuring the security of the LNG facility and the LNG vessel while in transit and while unloading at the dock. As a result of its recently completed security workshops, the Coast Guard has designed a robust security plan that requires significant Coast Guard, public, and private resources necessary to implement security measures. While the specific costs to the states and local communities have not been determined, Weaver's Cove has committed to providing funding for direct transit-related security costs. In addition to these direct transit-related state and local security costs, there may be a need to fund additional capital costs associated with security and emergency response, such as equipment and personnel. Environmental Condition 42 requires that Weaver's Cove provide a comprehensive plan identifying the mechanisms for funding all project-specific security and emergency response/management costs that would be imposed on state agencies and local communities, including capital costs.

⁵⁴ As an indication of these costs, the proposed KeySpan LNG import terminal near Providence, Rhode Island estimated state and local security costs for its LNG deliveries at \$40,000 to \$50,000 per vessel port call.

- 96. To transit to the proposed LNG terminal site, LNG vessels would pass under or through four well-traveled bridges. A number of commentors expressed concern in response to the DEIS regarding the impact of potential of bridge closures -- the impact of traffic backups on local roads and highways, and the impact of bridge closures on the ability of emergency vehicle to access Fall River hospitals. As part of the review of the LNG vessel transit through Narragansett Bay to the terminal on the Taunton River, the Coast Guard considered the closure of one or more of the bridges along the vessel route. While bridge closures are one of the many tools available to the Coast Guard, the security workshop participants have determined it is not necessary to close the bridges unless the threat condition or current intelligence raises a concern about security issues. To ensure emergency vehicle access across the Braga and Brightman Street Bridges to the Fall River hospitals, Environmental Condition 76 requires that at least one of these bridges remain open during the passage of LNG vessels through the federal navigation channel in the Taunton River.
- 97. A number of organizations and individuals commented on the need to consider evacuation plans and warning systems. In a letter dated April 27, 2005, the Coalition for Responsible Siting of LNG Facilities (the Coalition) questioned whether Weaver's Cove can develop a viable emergency response plan for the project based on: (1) the number of people in close proximity to the proposed facility who could potentially be within the thermal radiation distances reported in the Sandia Report; (2) a National Fire Protection Association's study released in 2004, which indicated that most fire departments in Massachusetts do not have the training, personnel, or equipment to provide adequate emergency response services; and (3) the Coalition's belief that a plan comparable to the current Cove Point LNG Project emergency response plan cannot be developed for the Weaver's Cove LNG Project based on its discussions with emergency response personnel and review of the existing plan. The Coalition concludes that the Commission should require completion of the emergency response plan prior to permitting the facility, if the Commission believes a viable emergency response plan is possible for the project. By doing so, the Coalition indicates that local emergency and city officials could review and comment on the plan.
- 98. While the preparation of emergency procedures typically occurs at the end of the LNG facility construction phase, the FEIS recognized that there remain a number of issues concerning the viability of emergency evacuation that have not yet been satisfactorily resolved. Therefore, Environmental Condition 34 requires Weaver's Cove

⁵⁵ After the FEIS was issued the Rhode Island Turnpike and Bridge Authority for the first time submitted comments expressing concern regarding the movement of LNG tankers under or near bridges under its jurisdiction. The issues it raises are addressed in the FEIS and in this order.

to develop emergency evacuation routes for the areas along the route of the LNG vessel transit prior to construction. Emergency evacuation planning with local departments will identify evacuation routes based upon increasing severity of events, as well as the time required for evacuation.

- 99. In addition, Environmental Condition 67 has been revised to require Weaver's Cove to develop an initial Emergency Response Plan (including evacuation) and coordinate procedures with local emergency planning groups, fire departments, state and local law enforcement prior to initial site preparation. Therefore, it is the responsibility of Weaver's Cove to develop emergency evacuation routes and the initial Emergency Response Plan in coordination with state and local officials to ensure that a viable plan is possible for the project. Weaver's Cove is required to file the evacuation routes and Emergency Response Plan for review and approval by the Director of OEP. These plans, similar to other mitigation plans, can be appropriately developed and implemented following the Commission's approval process, as long as there is a mechanism for review and approval by the Commission.
- 100. The proposed import terminal location in Fall River makes use of a 73-acre industrially zoned property which is a contaminated site used historically as a petroleum products storage and distribution facility from the 1920s to the 1990s. The site is located on an existing federal navigation channel and turning basin and is within a designated port area for marine dependent industrial use under Massachusetts law. The FEIS examined alternative site locations and technologies for the project. No existing LNG facilities have the space to add the capacity proposed in this project. The FEIS did not identify any alternative location or technology that would be preferable to the proposed project. Alternatives were eliminated from consideration because they did not meet the purpose of the project, could not be developed in the time frame required by the applicant, involved greater environmental impacts, or the property was not available for development.
- 101. One particular alternative the FEIS evaluated was siting the proposed LNG import terminal in offshore areas, which included an analysis of the preliminary plans to build LNG facilities offshore of Gloucester, Massachusetts by Neptune LNG, L.L.C. (a subsidiary of Tractabel LNG North America, L.L.C.), and Excelerate Energy, L.L.C. (Excelerate) for the Neptune LNG and Northeast Gateway Deepwater Port Projects, respectively. The FEIS found that if the Neptune LNG or the Northeast Gateway Projects were constructed, either project could potentially meet some of Weaver's Cove's objective of providing a new source of imported LNG in the New England market area; however, the reliability of the supply remains uncertain. To meet peak winter demand in New England, it is essential that an offshore system have the proven reliability to provide both the average baseload and maximum sendout during the most severe offshore weather.

- 102. The service reliability of this alternative is dependent on a limited supply of specially designed regasification ships because docking and cargo transfers cannot presently be performed by conventional LNG ships. The Neptune and Excelerate LNG Projects would each require three of the specialized regasification vessels to provide continuous baseload gas service. For this reason, the FEIS was unable to determine whether the Neptune LNG or Northeast Gateway Projects would be able to provide the service reliability of a traditional onshore LNG storage facility. Additionally, neither the Neptune LNG Project nor the Northeast Gateway Project could provide an additional source of LNG to meet the needs of existing peakshaving facilities for LNG truck service, which is currently critical in meeting peak winter demand in the New England region. Although the FEIS recognized the potential for offshore docking and LNG regasification ships to have a future role in the gas supply mix in New England as well as other areas, these facilities by themselves would not be a viable alternative that meets all of the objectives of the proposed Weaver's Cove LNG Project.
- 103. On June 16, 2005, as part of its motion in support of the May 12, 2005 request for hearing by the City of Fall River and the Massachusetts Attorney General, the Massachusetts Energy Facilities Siting Board (Siting Board) filed comments on the alternatives analysis presented in the FEIS. Although the Siting Board concedes that the range of alternatives analyzed in the FEIS is reasonable, it contends that the FEIS does not systematically and comprehensively compare the advantages and disadvantages of proposed project with all the identified alternatives. The Siting Board states that the FEIS failed to evenly address the merits of all alternatives using a complete and common set of comparison criteria, adequately consider safety issues and community impacts in weighing comparison criteria, include gas supply cost and gas supply need as comparison criteria, reach conclusions as to whether the proposed project or an alternative is "preferable", and define how comparison criteria are to be weighed in drawing conclusions regarding alternatives.
- 104. Under NEPA, the Commission's responsibility is to evaluate the environmental impacts from a proposal before the Commission, including reasonable alternatives to that proposal. That does not require a detailed analysis of every alternative proposed. Once we have determined that a suggested alternative is not viable and have explained our reasoning for this determination, there is no reason to conduct further review of that suggested alternative. In this proceeding, the baseline of the FEIS alternative analysis was the proposed action, and therefore all alternatives were compared to the proposed Weaver's Cove LNG terminal. In considering the range of alternatives that may offer environmental advantage over the proposed action, the FEIS considered criteria such as cost, safety, technical feasibility, community and other environmental impacts. In addition to evaluating whether an alternative was technically and economically feasible, reasonable, and practical, the evaluation criteria for selecting alternatives included

⁵⁶ East Tennessee Natural Gas Company, 101 FERC ¶ 61,188 at P 94 (2002).

whether they meet the proposed project objectives. The FEIS analyzed alternatives to the point where it was clear that an alternative was not reasonable or would result in significantly greater environmental impacts that cannot be readily mitigated. Those alternatives that appeared to be the most reasonable with less than or similar levels of environmental impact were reviewed in the greatest detail.

- 105. We believe that the FEIS analysis of alternatives adequately weighs the safety and environmental impacts of both locating the proposed LNG terminal at alternative coastal locations and evaluating the existing or proposed natural gas facilities which could potentially meet the stated objectives of the proposed project. The assessment of site alternatives in the FEIS identified specific criteria and included a table comparing the relative merits of various sites in a systematic and comprehensive manner. The analysis of system alternatives in the FEIS considered specific criteria; however, the lack of information available regarding several of the planned natural gas facilities considered prevented a comparison at the same level of detail. The FEIS found no alternative that is clearly preferable to the proposed action and each alternative presents its own unique set of impacts. Further, the FEIS found that the proposed action can be constructed and operated in an environmentally acceptable manner.
- 106. In addition to the considerable public opposition to the project, most of the federal and state resource agencies with a permitting or advisory role in the project have significant concern about the project's dredging-related impacts on water quality and fisheries habitat in Narragansett Bay, Mt. Hope Bay, and the Taunton River. These agencies include NOAA Fisheries, EPA, COE, Massachusetts Office of Coastal Zone Management (OCZM), Massachusetts Department of Environmental Protection (DEP), Massachusetts Marine Division of Fisheries (DMF), Rhode Island Coastal Resources Management Council (CRMC), and the Rhode Island Department of Environmental Management.
- 107. To maintain safe access to the LNG terminal, Weaver's Cove proposes to permanently deepen the existing federal navigation channel and a portion of the east channel to 37 feet. ⁵⁷ The horizontal limits of the dredging would be confined to the existing 400-foot-wide channel, and the existing turning basin would be permanently enlarged and deepened to 41 feet. The project would require the dredging of up to about 2.6 million cubic yards of sediment from the Taunton River and Mount Hope Bay to facilitate LNG ship transit. This dredging would disturb about 191 acres of the bed of the river and bay.

⁵⁷ The existing channel has a federally authorized depth of 35 feet mean lower low water (MLLW).

- 108. While the FEIS includes a thorough review of Weaver's Cove's dredge modeling data, the resource agencies question the dredge modeling inputs used to assess the proposed dredging effects on aquatic resources and have suggested time of year restrictions more severe than the 228 day dredging window recommended in the FEIS (see Environmental Condition 21). Based on consultations with the federal and state resource agencies, the FEIS analyzed the impact of restricting dredging during times of the year when sensitive aquatic organisms (e.g., winter flounder, anadromous species) could be adversely affected, and it considered offshore disposal of dredged materials. Based on the new/existing Brightman Street Bridge construction delays, he FEIS found that the time-of-year restriction to minimize impact on winter flounder (as required by Environmental Condition 21) would not impact the in-service date of the project or necessitate offshore disposal. It is possible that the time of year restrictions ultimately imposed by the agencies would limit Weaver's Cove's annual dredging to a 75-day period between November and January. The FEIS found that such restrictions could necessitate offshore disposal.
- 109. Additionally, the FEIS found that the offshore, open water disposal alternative would be environmentally acceptable if the COE and EPA determine that a significant volume of sediments are suitable for offshore, open water disposal.⁵⁹ However, the FEIS also determined that offshore disposal of suitable dredged material is not without impacts and is not clearly environmentally preferable to Weaver's Cove's proposed reuse of the dredged material as general site fill at the LNG terminal site. This conclusion assumes that Weaver's Cove is able to resolve the regulatory and legal disputes of its proposed sediment reuse plan at the LNG terminal site.
- 110. In addition to the resource agencies' concern associated with the proposed dredging, there are several other unresolved issues which are discussed in the FEIS which require resolution prior to any project construction. To date, the Massachusetts DEP has not made a final determination regarding whether: the proposed placement of the stabilized dredged sediment on the LNG terminal site complies with the anti-degradation provision of the Massachusetts Contingency Plan (MCP); the material could be placed on

⁵⁸ The Massachusetts Highway Department has verified that the new Brightman Street Bridge construction will delay Weaver's Cove's proposed schedule for the LNG terminal operations by at least 2 to 3 years until 2010.

⁵⁹ Weaver's Cove conducted Tier III testing of the sediments to determine their suitability for open water disposal. Weaver's Cove's analysis of these results indicates that most of the proposed dredged material would be suitable for open water disposal. However, the COE and EPA are currently reviewing the Tier III testing results and have not concurred with Weaver's Cove's determination regarding the suitability of the material for offshore disposal.

site without adversely affecting Shell's existing remediation activities; or that all the material constitutes a beneficial reuse and is necessary for site development under the MCP. A negative determination on any of these issues could prohibit or affect the proposed use of the site. Environmental Condition 18 requires that Weaver's Cove file documentation with the Commission prior to construction to verify that placement of the stabilized dredge material on the LNG terminal site is consistent with the MCP. If Weaver's Cove is unable to verify consistency of the proposed use of the sediment with the MCP, it must file a revised sediment placement plan that identifies alternative location(s) for use of the dredged sediments.

- 111. There remains a legal question of whether or not Weaver's Cove can obtain control of the LNG terminal site due to both the ongoing remediation work at the site and the existing deed restrictions attached to the property. As explained above, and as set forth in Environmental Condition 77, Weaver's Cove will need to resolve this issue prior to construction of the LNG facility. Further, Weaver's Cove has not received to date concurrence from the OCZM or the CRMC regarding the project's consistency with the Massachusetts and Rhode Island Coastal Zone Management Plans. Environmental Conditions 23 and 24 require that Weaver's Cove file documentation of these concurrences prior to construction.
- 112. We have reviewed the information and analysis contained in the FEIS regarding the potential environmental effect of the project. Based on our consideration of this information, we agree with the conclusions presented in the FEIS that, although the proposed LNG terminal would introduce a new risk to the public, the project would meet federal safety standards, could be operated safely, and would have limited adverse environmental impact. Further, we are ensuring the LNG facilities will be subject to Commission staff technical review and site inspections on at least an annual basis. The implementation of the Coast Guard's security plan that would control the LNG vessels operating through Narragansett Bay to and from the proposed terminal would further ensure the public's safety. These conclusions are based on the construction and operation of the project in accordance with Weaver's Cove's proposed mitigation and the environmental mitigation measures recommended the FEIS. Accordingly, we are including as Appendix B the environmental mitigation measures recommended in the FEIS as conditions to the authorization issued to Weaver's Cove in this order.
- 113. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions in this order. We encourage cooperation between Weaver's Cove, Mill River, and local authorities. However, this

does not mean that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.⁶⁰

- 114. Weaver's Cove or Mill River, as pertinent, shall notify the Commission's environmental staff by telephone or facsimile of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Weaver's Cove or Mill River. Weaver's Cove or Mill River shall file written confirmation of such notification with the Secretary of the Commission within 24 hours
- 115. The Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application and exhibits thereto, submitted in support of the authorization sought herein, and upon consideration of the record,

The Commission orders:

- (A) In Docket No. CP04-36-000, Weaver's Cove is authorized under Section 3 of the Natural Gas Act to site, construct, and operate its proposed LNG terminal at Fall River, Massachusetts, as more fully described in this order and in the application.
- (B) In Docket No. CP04-41-000, a certificate of public convenience and necessity is issued to Mill River under Section 7(c) of the Natural Gas Act authorizing it to construct and operate its proposed pipeline facilities, as more fully described in the order and in the application.
- (C) In Docket No. CP04-42-000, a blanket transportation certificate is issued to Mill River under Subpart G of Part 284 of the Commission's regulations.
- (D) In Docket No. CP04-43-000, a blanket construction certificate is issued to Mill River under Subpart F of Part 157 of the Commission's regulations.
- (E) The authorizations in the above paragraphs are conditioned on Mill River's compliance with Part 154 and paragraphs (a), (c), (e), and (f) of section 157.20 of the Commission's regulations.
- (F) In Docket No. CP04-41-000, Mill River shall adhere to the AFUDC requirements discussed in the body of this order.

⁶⁰ See, e.g., Schneidewind v. ANR pipeline Co., 485 U.S. 293; National Fuel Gas Supply v. Public Service Commission, 894 F.2d 571 (2nd Cir. 1990); Iroquois Gas Transmission System, L.P., et al., 52 FERC ¶ 61,091 and 59 FERC ¶ 61,094 (1992).

- (G) Mill River's *pro forma* tariff is accepted, subject to Mill River's filing a narrative explaining how the tariff conforms to Order No. 637 and each NAESB standard, including a chart identifying each NAESB standard and definition and the location of the NAESB standards as incorporated verbatim or by reference in Mill River's tariff.
- (H) Construction of the facilities authorized herein shall be completed within five years from the date of a final order in this proceeding in accordance with section 157.20(b) of the Commission's regulations.
- (I) Mill River must execute a firm contract equal to the level of service and in accordance with the terms of service represented in its precedent agreement prior to commencement of construction.
- (J) Within three years after its in-service date, as discussed herein, Mill River must make a filing to justify its existing rates or propose alternative rates.
- (K) Weaver's Cove and Mill River shall comply with the environmental conditions contained in Appendix B to this order.
- (L) The requests for evidentiary hearing, for consolidation, for delay in processing the application, and for a supplemental draft environmental impact statement, are denied. The written materials jointly submitted as testimony in the requested hearing by the City of Fall River and the Attorney General of the Commonwealth of Massachusetts are rejected.

By the Commission. Commissioner Kelly dissenting with a separate statement attached.

(SEAL)

Linda Mitry, Deputy Secretary.

Appendix A – Intervenors

Algonquin Gas Transmission Company

Amerada Hess Corporation

BP Energy Company

Calpine Corporation

Cheniere LNG, Inc.

Conoco Phillips Company

Conservation Law Foundation

Distrigas of Massachusetts LLC

Duke Energy Trading and Marketing, L.L.C.

Ducharme, Frederick J. Jr.

ExxonMobil Gas & Power Marketing Company

FPL Group Resources, LLC

Freeport LNG Development, L.P.

Green Futures

KeySpan LNG, L.P.

The KeySpan Delivery Companies

Massachusetts, Attorney General of the Commonwealth of

Massachusetts Division of Energy Resources

Massachusetts Energy Facilities Siting Board

Merchants Mills Limited Partnership

Miozza, Michael L.

National Grid USA

New England Gas Company

Project Technical Liaison Associates, Inc.

Rhode Island, Attorney General of the State of

Save the Bay, Narragansett Bay, Inc.

Sempra Energy LNG

Shell Oil Products US

Southern LNG Inc.

Statoil ASA and Statoil Natural Gas LLC

Thomas, Clement E.

Total Gas & Power North America, Inc.

Trunkline LNG Company, LLC

Appendix B

Environmental Conditions for the Weaver's Cove/Mill River Project

As recommended in the EIS, this authorization includes the following condition(s):

- 1. Weaver's Cove and Mill River⁶¹ shall follow the construction procedures and mitigation measures described in its application, supplemental filings (including responses to staff data requests), and as identified in the environmental impact statement (EIS), unless modified by the Federal Energy Regulatory Commission's (FERC or Commission) Order. Weaver's Cove must:
 - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);
 - b. justify each modification relative to site-specific conditions;
 - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
 - d. receive approval in writing from the Director of the Office of Energy Projects (OEP) **before using that modification**.
- 2. For pipeline facilities, the Director of OEP has delegation authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the project. This authority shall allow:
 - a. the modification of conditions of the Commission's Order; and
 - b. the design and implementation of any additional measures deemed necessary (including stop work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from project construction and operation.
- 3. For LNG facilities, the Director of OEP has delegated authority to take all steps necessary to ensure the protection of life, health, property, and the environment during construction and operation of the project. This authority shall include:
 - a. stop-work authority and authority to cease operation; and
 - b. the design and implementation of any additional measures deemed necessary to assure continued compliance with the intent of the conditions of this Order.

⁶¹ Hereafter, Weaver's Cove is used in measures applicable to both Weaver's Cove and Mill River.

- 4. **Prior to any construction**, Weaver's Cove shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors (EIs), and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs before becoming involved with construction and restoration activities.
- 5. The authorized facility locations shall be as shown in the EIS, as supplemented by filed alignment sheets, and shall include the staff's recommended facility locations. **As soon as they are available, and before the start of construction**, Weaver's Cove shall file with the Secretary revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by this Order. All requests for modifications of environmental conditions of this Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.
- 6. Weaver's Cove shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that will be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP before construction in or near that area.

This requirement does not apply to route variations recommended herein or minor field realignments per landowner needs and requirements that do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

- a. implementation of cultural resources mitigation measures;
- b. implementation of endangered, threatened, or special concern species mitigation measures;
- c. recommendations by state regulatory authorities; and
- d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.
- 7. **At least 60 days before the start of construction,** Weaver's Cove shall file an initial Implementation Plan with the Secretary for the review and written approval by the Director of OEP describing how Weaver's Cove will implement the

mitigation measures required by this Order. Weaver's Cove must file revisions to the plan as schedules change. The plan shall identify:

- a. how Weaver's Cove will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;
- b. the number of EIs assigned per spread, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
- c. company personnel, including EIs and contractors, who will receive copies of the appropriate material;
- d. what training and instructions Weaver's Cove will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change), with the opportunity for OEP staff to participate in the training session(s);
- e. the company personnel (if known) and specific portion of Weaver's Cove's organization having responsibility for compliance;
- f. the procedures (including use of contract penalties) Weaver's Cove will follow if noncompliance occurs; and
- g. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
 - i. the completion of all required surveys and reports;
 - ii. the mitigation training of onsite personnel;
 - iii. the start of construction; and
 - iv. the start and completion of restoration.
- 8. Weaver's Cove shall develop and implement an environmental complaint resolution procedure. The procedure shall provide landowners with clear and simple directions for identifying and resolving their environmental mitigation problems/concerns during construction of the project and restoration of the right-of-way. **Prior to construction**, Weaver's Cove shall mail the complaint resolution procedures to each landowner whose property would be crossed by the project and to those landowners whose property is within ½ mile of the LNG terminal site.
 - a. In its letter to affected landowners, Weaver's Cove shall:
 - i. provide a contact that the landowners shall call first with their concerns; the letter shall indicate how soon a landowner shall expect a response;

- ii. instruct the landowners that, if they are not satisfied with the response, they shall call Weaver's Cove's hotline; the letter shall indicate how soon to expect a response; and
- iii. instruct the landowner that, if they are still not satisfied with the response from Weaver's Cove, they shall contact the Commission's Enforcement Hotline at (888) 889-8030.
- b. In addition, Weaver's Cove shall include in its weekly status report a copy of a table that contains the following information for each problem/concern:
 - i. the date of the call;
 - ii. the identification number from the certified alignment sheets of the affected property;
 - iii. the description of the problem/concern; and
 - iv. an explanation of how and when the problem was resolved, will be resolved, or why it has not been resolved.
- 9. Weaver's Cove shall employ a team of EIs. The EIs shall be:
 - a. responsible for monitoring and ensuring compliance with all mitigation measures required by this Order and other grants, permits, certificates, or other authorizing documents;
 - b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 6 above) and any other authorizing document;
 - c. empowered to order correction of acts that violate the environmental conditions of this Order, and any other authorizing document;
 - d. a full-time position, separate from all other activity inspectors;
 - e. responsible for documenting compliance with the environmental conditions of this Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
 - f. responsible for maintaining status reports.
- 10. Weaver's Cove shall file updated status reports prepared by the EI with the Secretary on a weekly basis until all construction and restoration activities are complete. On request, these status reports shall also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
 - a. the current construction status of the project, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally sensitive areas;
 - b. a listing of all problems encountered and each instance of noncompliance observed by the environmental inspector(s) during the reporting period (both for the conditions imposed by the Commission and any

- environmental conditions/permit requirements imposed by other federal, state, or local agencies);
- c. corrective actions implemented in response to all instances of noncompliance, and their cost;
- d. the effectiveness of all corrective actions implemented;
- e. a description of any landowner/resident complaints which may relate to compliance with the requirements of this Order, and measures taken to satisfy their concerns; and
- f. copies of any correspondence received by Weaver's Cove from other federal, state, or local permitting agencies concerning instances of noncompliance, and Weaver's Cove's response.
- 11. Weaver's Cove must receive written authorization from the Director of OEP before commencing service of the project. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way is proceeding satisfactorily.
- 12. **Within 30 days of placing the certificated facilities in service**, Weaver's Cove shall file an affirmative statement with the Secretary, certified by a senior company official:
 - a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
 - b. identifying which of the certificate conditions Weaver's Cove has complied with or will comply with. This statement shall also identify any areas along the right-of-way where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
- 13. Weaver's Cove shall develop a site-specific plan for construction of the adopted River Street Variation that includes a description of any special construction techniques that would be used (e.g., stove-pipe or drag-section techniques) and other steps taken to minimize impacts on local residences and commercial facilities. This plan shall be filed with the Secretary for review and approval by the Director of OEP **prior to construction**.
- 14. Weaver's Cove shall prepare final engineering design plans ensuring the stability of all site grades and the waterfront walls and file these plans with the Secretary for review and approval by the Director of OEP **prior to construction**.
- 15. Weaver's Cove shall prepare a plan for the discovery and management of contaminated soils and groundwater. This plan shall comply with applicable state and federal regulations and shall provide for management of contaminants at

- known sites and include procedures for the identification and management of unknown contaminants in other locations. The plan shall be filed with the Secretary for review and approval by the Director of OEP **prior to construction**.
- 16. Weaver's Cove shall consult with the COE regarding the appropriate method(s) for dredging and managing the sediment from the immediate vicinity of turning basin core 10. Weaver's Cove shall file copies of all correspondence and any final plan for managing dredged sediment associated with core TB-10 with the Secretary for review and approval by the Director of OEP **prior to dredging**.
- 17. Weaver's Cove shall provide all appropriate grading plans, cross section drawings, and risk assessments required to demonstrate the degree of isolation provided by the upland reuse of stabilized dredged materials. The required documentation shall be filed with the Secretary for review and approval by the Director of OEP **prior to construction**.
- 18. Weaver's Cove shall file documentation with the Secretary **prior to construction** to verify that placement of the stabilized dredged material on the LNG terminal site is consistent with the Massachusetts Contingency Plan (MCP). If Weaver's Cove is unable to verify the consistency of the proposed use of the sediment with the MCP, it shall file a revised sediment placement plan that identifies alternative location(s) for use of the sediments. The alternative use plan, if necessary, shall be developed in consultation with the relevant agencies and include a detailed assessment of the environmental impacts associated with the alternative location(s) and demonstrate that the alternative location(s) are in compliance with applicable regulations. Weaver's Cove shall file the plan, if necessary, with the Secretary for review and approval by the Director of OEP **prior to construction**.
- 19. Weaver's Cove shall consult with the COE and NOAA Fisheries regarding mitigation of wetlands as well as intertidal and subtidal habitats and shall file with the Secretary the results of these consultations and the COE-approved Wetland Mitigation Plan **prior to construction**.
- 20. Weaver's Cove shall complete the coordination with applicable federal and state resource agencies regarding development and funding of mitigation measures to offset impacts on quahogs resulting from dredging of the turning basin and file the results of that coordination, including copies of agency approval, with Secretary **prior to dredging**.
- 21. Weaver's Cove shall modify its proposed dredging program and pipeline construction plans within the Taunton River to prohibit any silt-disturbing construction activities during the winter flounder spawning period (January 15 through May 31). In addition, Weaver's Cove shall continue to consult with federal and state agencies and develop a mitigation plan to offset permanent loss

- of winter flounder spawning and juvenile development habitat resulting from expansion of the turning basin. The revised dredging plan and the winter flounder habitat mitigation plan shall be filed with the Secretary **prior to dredging**.
- 22. Weaver's Cove shall coordinate with NOAA Fisheries to determine appropriate speed and seasonal restrictions, or other applicable measures, to avoid or minimize impacts on right whales. Results of the coordination, including a discussion of restrictions to be implemented, shall be filed with the Secretary, **prior to commencing operation of the LNG terminal**.
- 23. Weaver's Cove shall file with the Secretary **prior to construction** documentation of concurrence from the Office of Coastal Zone Management that the project is consistent with the Massachusetts Coastal Zone Management Program Plan.
- 24. Weaver's Cove shall file with the Secretary **prior to construction** documentation of concurrence from the Coastal Resources Management Council that the project is consistent with the Rhode Island Coastal Resources Management Program.
- 25. **Prior to construction**, Weaver's Cove shall file with the Secretary documentation of concurrence from the U.S. Department of the Interior that the project would not have a substantial adverse affect on the Taunton River's potential designation as a Wild and Scenic River (WSR) and that the project would be consistent with the Wild and Scenic River Act if the Taunton River were designated a Wild and Scenic River.
- 26. Weaver's Cove shall prepare a landscaping plan showing how the northern and southern parcels of the LNG terminal site would be restored and revegetated. The plan shall include the locations and descriptions of specific measures and plantings to screen views of the LNG facilities from nearby residences. The landscaping plan shall be filed with the Secretary for review and written approval by the Director of OEP **prior to construction**.
- 27. Weaver's Cove shall file with the Secretary for the review and written approval of the Director of OEP **prior to construction**, a visual screening plan developed in consultation with and approved by Somerset Power, L.L.C. that includes measures to replace screening vegetation removed from the temporary construction right-of-way between MPs 0.49 and 0.54 of the Western Pipeline route.
- 28. Weaver's Cove shall defer construction of the LNG terminal and Northern and Western Pipelines and associated aboveground facilities **until**:
 - a. Weaver's Cove provides the Massachusetts State Historic Preservation Office (SHPO) with the appropriate plans, drawings, and photographic simulations for the meter station and pipeyard in relation to the Winslow

- Burial Ground, and provides the SHPO's comments on this information;
- b. Weaver's Cove conducts the recommended site examination surveys at the CSX#1, CSX#2, ISP#1, ISP#2, and the Taunton River Marsh sites, and files with the Secretary the evaluation reports and the SHPO's comments on the reports;
- c. Weaver's Cove conducts additional site examination at the Barnaby Swamp 2 Site, and files with the Secretary the report and the SHPO's comments on the report;
- d. Weaver's Cove files with the Secretary an avoidance plan for the Slade Farmstead and Cemetery and the SHPO's comments on the plan;
- e. Weaver's Cove files with the Secretary and the SHPO any additional required survey and evaluation reports, and any required treatment or avoidance plans, and the SHPO's comments on all reports and plans; and
- f. The Director of OEP reviews and approves all cultural resources reports and plans, and notifies Weaver's Cove in writing that it may proceed with treatment measures or construction.

All material filed with the Secretary containing location, character, and ownership information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: "CONTAINS PRIVILEGED INFORMATION - DO NOT RELEASE."

- 29. Weaver's Cove shall use transportation grade (0.05 weight percent sulfur) or better diesel fuel in all construction equipment, including dredging equipment, for the proposed project and evaluate the feasibility of using catalysts and diesel particulate filters on this equipment and placing idling limits on the construction vehicles to further reduce particulate matter less than 10 microns in diameter, carbon monoxide, and volatile organic compound emissions.
- 30. Weaver's Cove shall develop a nuisance odor complaint and abatement plan to investigate and address complaints related to odor emissions from the dewatered and stabilized dredged sediments. The plan shall include procedures for adjacent landowners to contact a Weaver's Cove representative regarding objectionable odors, a process for investigating and addressing the complaints, and a description of mitigative measures that would be implemented to abate the problem. The nuisance odor complaint and abatement plan shall be filed with the Secretary **prior to construction**. In addition, Weaver's Cove shall include any odor complaints in the weekly status reports filed with the FERC. The report shall include a discussion of how odor complaints were resolved.
- 31. Weaver's Cove shall prepare a noise mitigation plan to ensure that the dredging, offloading, and stabilization operations do not contribute more than 55 decibels of the A-weighted scale (dBA) day-night sound level (L_{dn}) to the ambient noise level at any noise sensitive area (NSA). Weaver's Cove shall file the plan with the

Secretary for the review and written approval of the Director of OEP prior to the initiation of any construction activities at the LNG terminal.

32. Weaver's Cove shall make all reasonable efforts to assure its predicted noise levels from the LNG terminal are not exceeded at the NSAs and file noise surveys showing this with the Secretary **no later than 60 days after placing the LNG terminal in service**. However, if the noise attributable to the operation of the LNG terminal exceeds 55 dBA L_{dn} at an NSA or the noise increase exceeds 10 dBA sound level that is exceeded more than 90 percent of the time (L₉₀) at an NSA, Weaver's Cove shall file a report on what changes are needed and shall install additional noise controls to meet the level within 1 year of the in-service date. Weaver's Cove shall confirm compliance with these requirements by filing a second noise survey with the Secretary no later than 60 days after it installs the additional noise controls.

The following measures apply to the LNG terminal design and construction details. Information pertaining to these specific recommendations 33 through 61, unless otherwise noted, shall be filed with the Secretary for review and approval by the Director of OEP either: prior to initial site preparation; prior to construction of final design; prior to commissioning; or prior to commencement of service. This information shall be submitted a minimum of 30 days before approval to proceed is required.

- 33. Weaver's Cove shall examine provisions to retain any vapor produced along the transfer line trenches and other areas serving to direct LNG spills to associated impoundments. Measures to be considered may include, but are not limited to: vapor fencing, intermediate sump locations, or trench surface area reduction. Weaver's Cove shall file final drawings, including cross sections, and specifications for these measures with the Secretary **prior to initial site preparation** for review and approval by the Director of OEP.
- 34. Weaver's Cove shall develop emergency evacuation routes for the areas along the route of the LNG vessel transit in conjunction with the local emergency and town officials and file the routes with the Secretary for review and approval by the Director of OEP **prior to initial site preparation**.
- 35. Weaver's Cove shall provide a technical review of its facility design that:
 - a. Identifies all combustion/ventilation air intake equipment and the distance(s) to any possible hydrocarbon release (LNG, flammable refrigerants, flammable liquids, and flammable gases).
 - b. Demonstrates that these areas would be adequately covered by hazard detection devices and indicate how these devices would isolate or shutdown any combustion equipment whose continued operation could add

to or sustain an emergency. Fired heaters shall be shut down in the event of an LNG spill, or presence of a flammable vapor cloud.

Weaver's Cove shall file this review **prior to initial site preparation**.

- 36. **Prior to initial site preparation**, Weaver's Cove shall provide documentation, or a limited waiver from the Department of Transportation, on how the LNG tank would meet National Fire Protection Association (NFPA) 59A table 2-2.4.1, which requires the distance from the edge of the impoundment to the property line to be not less than 0.7 times the container diameter. The separation distance from the LNG tank impoundment wall to the property boundaries on the southwestern area of the site where the proposed plant property line abuts the shoreline of the Taunton River does not appear to meet the 0.7 criteria.
- 37. **Prior to initial site preparation**, Weaver's Cove shall file a firewater system design that provides for fire water flow to be maintained for a minimum of two hours, in accordance with code requirements. The fire water tank shall be automatically filled from the city mains supply and the city mains pressure continuously monitored and alarmed at low pressure. As an alternative, river water may be evaluated for use in the firewater system.
- 38. The portion of the planned retaining wall on the riverbank, which is opposite the tanks, shall be designed to ensure the stability of the LNG storage tank in a Safe Shutdown Earthquake (SSE) event. A slope stability analysis shall be conducted in order to ascertain the adequacy of the proposed retaining wall structures. The LNG tank shall be designed to withstand the SSE event as required by 49 CFR Part 193 and NFPA 59A (2001). All other structures shall be designed to withstand the effects of an Operating Basis Earthquake, as required by 49 CFR Part 193 and NFPA 59A (2001), and, further, the condition of these structures shall not adversely affect the stability and integrity of the tank in the SSE event. **Prior to initial site preparation**, Weaver's Cove shall file the results of the hydraulic test and stone column field test, and the final LNG storage tank design for seismic review and approval by the Director of OEP.
- 39. Weaver's Cove shall revise the design of the impoundment sump to accommodate a design spill from the LNG storage tank in-tank pump discharge header with five pumps operating at maximum capacity. **At least 30 days prior to initial site preparation**, Weaver's Cove shall submit revised calculations showing the 1,600 Btu/ft²-hr exclusion zone for the altered impoundment sump would meet the requirements of Title 49 CFR Part 193.
- 40. Weaver's Cove shall provide evidence of its ability to exercise control over the activities that occur within the portions of the thermal exclusion zones that fall outside the site property line. Alternatively, Weaver's Cove may apply to the Department of Transportation for approval of a waiver, from its Title 49 CFR Part

193 regulation, that specifies what alternative mitigation measures or plan Weaver's Cove may provide that would afford an equal or greater level of thermal radiation protection as the requirement for control over activities within the modeled exclusion zones. Weaver's Cove shall file this evidence or waiver **prior to initial site preparation**.

- 41. Weaver's Cove shall revise the design of the impoundment sump to accommodate a design spill from the LNG storage tank in-tank pump discharge header with five pumps operating at maximum capacity. At least 30 days prior to initial site preparation, Weaver's Cove shall submit revised calculations demonstrating that the flammable vapor dispersion exclusion zone for the altered impoundment sump would meet the requirements of Title 49 CFR Part 193.
- 42. Weaver's Cove shall provide a comprehensive plan identifying the mechanisms for funding all project-specific security/emergency management costs that would be imposed on state and local agencies. In addition to the funding of direct transit-related security/emergency management costs, this comprehensive plan shall include funding mechanisms for the capital costs associated with any necessary security/emergency management equipment and personnel base. This plan shall be filed with the Secretary **prior to initial site preparation** for review and approval by the Director of OEP.
- 43. The **final design** shall include a re-evaluation of the use of butterfly valves for high pressure isolation.
- 44. The **final design** of the hazard detection equipment shall include redundancy and fault detection and fault alarm monitoring in all potentially hazardous areas and enclosures.
- 45. The **final design** of the hazard detection equipment shall provide flammable gas and ultraviolet/infrared (UV/IR) hazard detectors with local instrument status indication as an additional safety feature.
- 46. The **final design** shall include a boil-off gas flow measurement system for the LNG storage tank.
- 47. The **final design** shall include a reliable measurement system to monitor deflections during the hydraulic test. At a minimum, this system shall include two slope indicator ducts which bisect the tank in mutually perpendicular directions, monitoring points at the terminals of these ducts, and other monitoring points along the perimeter of the concrete shell, so that sag, warping, tilt, and settlement can be monitored. Tolerances for sag, tilt, and shell warping shall meet or exceed the limits specified by the tank manufacturer.

- 48. The **final design** of the LNG tank carbon steel piping support plates and connections to piping supports shall provide adequate corrosion protection. Provisions for corrosion monitoring and maintenance of carbon steel attachments shall be included in the design and maintenance procedures.
- 49. The **final design** of the LNG pumps shall include discharge flow measurement for minimum flow recycle control.
- 50. The **final design** shall include provisions to ensure that hot glycol/water circulation is operable at all times when LNG is present in the LNG booster pump discharge piping or when the temperature in the LNG inlet channel to any vaporizer is below 0° Fahrenheit (F).
- 51. The **final design** shall include detection instrumentation and shut down procedures for vaporizer tube leak, shell side overpressure, or bursting disc failure.
- 52. The **final design** shall include temperature measurement of the vaporizer common discharge header which shall alarm the low temperature condition.
- 53. The **final design** shall include provisions to recover boil-off gas, under all conditions, in the event that the send out vaporization system is not in operation.
- 54. The **final design** shall include automatic isolation valves at the suction and discharge of screw compressors and reciprocating boil-off compressors.
- 55. The **final design** shall ensure that air gaps are installed downstream of all seals or isolations installed at the interface between a flammable fluid system and an electrical conduit or wiring system. Each air gap shall vent to a safe location and be equipped with a leak detection device that: would continuously monitor for the presence of a flammable fluid; would alarm the hazardous condition; and would shutdown the appropriate systems.
- 56. The **final design** of the relief vent stacks shall include Resistance Temperature Detectors capable of measuring low and high temperature.
- 57. The **final design** shall ensure that dry nitrogen be supplied for purging cold systems.
- 58. The **final design** shall include safeguards to protect above ground fire water piping, including post indicator valves, from inadvertent damage.
- 59. The **final design** shall include a fire protection evaluation carried out in accordance with the requirements of NFPA 59A, chapter 9.1.2.

- 60. The **final design** shall include procedures for offsite contractors' responsibilities, restrictions, limitations, and supervision of the contractors by Weaver's Cove staff.
- 61. Security personnel requirements for prior to and during LNG vessel unloading shall be filed **prior to commissioning.**
- 62. Operation and maintenance procedures and manuals, as well as emergency plans, emergency evacuation plan, and safety procedure manuals, shall be filed **prior to commissioning**.
- 63. The contingency plan for failure of the outer LNG tank containment shall be filed **prior to commissioning**.
- 64. Copies of the Coast Guard security plan, vessel operation plan, and emergency response plan shall be provided to the FERC staff **prior to commissioning**.
- 65. Weaver's Cove shall coordinate with the Coast Guard to define the responsibilities of Weaver's Cove's security staff in supplementing other security personnel and in protecting the LNG ships and terminal **prior to commissioning**.
- 66. A copy of the criteria for horizontal and rotational movement of the inner vessel for use during and after cool down shall be filed **prior to commissioning**.
- 67. Weaver's Cove shall develop an initial Emergency Response Plan (including evacuation) and coordinate procedures with local emergency planning groups, fire departments, state and local law enforcement, and appropriate federal agencies. **This plan shall include at a minimum:**
 - a. designated contacts with state and local emergency response agencies;
 - b. scalable procedures for the prompt notification of appropriate local officials and emergency response agencies based on the level and severity of potential incidents;
 - c. procedures for notifying residents and recreational users within areas of potential hazard;
 - d. evacuation routes for residents along the route of the LNG vessel transit;
 - e. locations of permanent sirens and other warning devices; and
 - f. an "emergency coordinator" on each LNG vessel to activate sirens and other warning devices.

The initial Emergency Response Plan shall be filed with the Secretary for review and approval by the Director of OEP **prior to initial site preparation**. Weaver's Cove shall notify FERC staff of all meetings in advance and shall report progress on its Emergency Response Plan at 6-month intervals starting at the

commencement of construction.

- 68. The FERC staff shall be notified of any proposed revisions to the security plan and physical security of the facility **prior to commencement of service**.
- 69. Progress on the construction of the LNG terminal shall be reported in **monthly** reports filed with the Secretary. Details shall include a summary of activities, problems encountered and remedial actions taken. Problems of significant magnitude shall be reported to the FERC **within 24 hours**.

The following measures apply throughout the operation life of the LNG facility.

- 70. The facility shall be subject to regular FERC staff technical reviews and site inspections on an **annual** basis, or more frequently as circumstances indicate. Prior to each FERC staff technical review and site inspection, Weaver's Cove shall respond to a specific data request including information relating to possible design and operating conditions that may have been imposed by other agencies or organizations. Weaver's Cove shall also provide up-to-date detailed piping and instrumentation diagrams reflecting facility modifications and provision of other pertinent information not included in the semi-annual reports described below, including facility events that have taken place since the previously submitted annual report.
- 71. Weaver's Cove shall file **semi-annual** operational reports with the Secretary to identify changes in facility design and operating conditions, abnormal operating experiences, activities (including ship arrivals, quantity and composition of imported LNG, vaporization quantities, boil-off/flash gas, etc.), plant modifications including future plans and progress thereof. Abnormalities shall include, but not be limited to: unloading/shipping problems, potential hazardous conditions from offsite vessels, storage tank stratification or rollover, geysering, storage tank pressure excursions, cold spots on the storage tanks, storage tank vibrations and/or vibrations in associated cryogenic piping, storage tank settlement, significant equipment or instrumentation malfunctions or failures, nonscheduled maintenance or repair (and reasons therefore), relative movement of storage tank inner vessels, vapor or liquid releases, fires involving natural gas and/or from other sources, negative pressure (vacuum) within a storage tank and higher than predicted boil-off rates. Adverse weather conditions and the effect on the facility also shall be reported. Reports shall be submitted within 45 days after each period ending June 30 and December 31. In addition to the above items, a section entitled "Significant plant modifications proposed for the next 12 months (dates)" also shall be included in the semi-annual operational reports. Such information would provide the FERC staff with early notice of anticipated future construction/maintenance projects at the LNG facility.

- 72. In the event the temperature of any region of any secondary containment, including imbedded pipe supports, becomes less than the minimum specified operating temperature for the material, Weaver's Cove shall notify the Commission within 24 hours and shall specify the procedures for corrective action.
- 73. Weaver's Cove shall make a foundation elevation survey of the LNG tank on an annual basis.
- 74. Weaver's Cove shall report to FERC staff any significant non-scheduled events, including safety-related incidents (i.e., LNG or natural gas releases, fires, explosions, mechanical failures, unusual overpressurization, and major injuries) and security-related incidents (i.e., attempts to enter site, suspicious activities) within 24 hours of the event. In the event an abnormality is of significant magnitude to threaten public or employee safety, cause significant property damage, or interrupt service, notification shall be made immediately, without unduly interfering with any necessary or appropriate emergency repair, alarm, or other emergency procedure. This notification practice shall be incorporated into the LNG facility's emergency plan. Examples of reportable LNG-related incidents include:
 - a. fire;
 - b. explosion;
 - c. estimated property damage of \$50,000 or more;
 - d. death or personal injury necessitating in-patient hospitalization;
 - e. free flow of LNG for five minutes or more that results in pooling;
 - f. unintended movement or abnormal loading by environmental causes, such as an earthquake, landslide, or flood, that impairs the serviceability, structural integrity, or reliability of an LNG facility that contains, controls, or processes gas or LNG;
 - g. any crack or other material defect that impairs the structural integrity or reliability of an LNG facility that contains, controls, or processes gas or LNG;
 - h. any malfunction or operating error that causes the pressure of a pipeline or LNG facility that contains or processes gas or LNG to rise above its maximum allowable operating pressure (or working pressure for LNG facilities) plus the build-up allowed for operation of pressure limiting or control devices;
 - i. a leak in an LNG facility that contains or processes gas or LNG that constitutes an emergency;
 - j. inner tank leakage, ineffective insulation, or frost heave that impairs the structural integrity of an LNG storage tank;
 - k. any safety-related condition that could lead to an imminent hazard and

- cause (either directly or indirectly by remedial action of the operator), for purposes other than abandonment, a 20 percent reduction in operating pressure or shutdown of operation of a pipeline or an LNG facility that contains or processes gas or LNG;
- 1. safety-related incidents to LNG vessels occurring at or en route to and from the LNG facility; or
- m. an event that is significant in the judgment of the operator and/or management even though it did not meet the above criteria or the guidelines set forth in an LNG facility's incident management plan.

In the event of an incident, the Director of OEP has delegated authority to take whatever steps are necessary to ensure operational reliability and to protect human life, health, property or the environment, including authority to direct the LNG facility to cease operations. Following the initial company notification, FERC staff would determine the need for a separate follow-up report or follow-up in the upcoming semi-annual operational report. All company follow-up reports shall include investigation results and recommendations to minimize a reoccurrence of the incident.

- 75. Weaver's Cove shall **annually** review its waterway suitability assessment for the project; update the assessment to reflect changing conditions; provide the updated assessment to the cognizant Captain of the Port/Federal Maritime Security Coordinator for review and validation; and provide a copy to the FERC staff.
- 76. Any security plans shall make allowance to have at least one of the Braga and Brightman Street bridges remain open during the passage of LNG vessels through the federal navigation channel in the Taunton River and consideration shall be given to scheduling bridge closures to avoid peak traffic periods.
 - 77. Before commencement of any construction-related activities on the site formerly owned by Shell proposed for the LNG facilities approved here, Shell and Weaver's Cove must present appropriate evidence that they have reached agreement regarding deed restrictions with respect to future activities and use limitations on the site, or that a Massachusetts court of appropriate jurisdiction has resolved such deed restriction issues regarding Weaver's Cove's future use of the site.

UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Weaver's Cove Energy, LLC Docket No. CP04-36-000

Mill River Pipeline, LLC Docket Nos. CP04-41-000

CP04-42-000 CP04-43-000

(Issued July 15, 2004)

KELLY, Commissioner, dissenting:

This order authorizes Weaver's Cove Energy, L.L.C. to site, construct and operate an LNG terminal in Fall River, Massachusetts, under section 3 of the Natural Gas Act. The order finds that the proposed new LNG terminal will promote the public interest by increasing the availability of new natural gas supplies in the New England market. The order emphasizes that New England's demand for natural gas is expected to grow and the region should have adequate delivery infrastructure to meet winter cold peak demands only through 2010.¹

I agree with the majority that New England needs more infrastructure for greater gas supplies to meet projected demand after 2010. However, I do not believe that the Weaver's Cove project is the way to meet this need. First, there are numerous projects under construction, as well as additional proposed projects, that can meet the region's growing demand for gas. Second, the safety, environmental, and socioeconomic concerns related to the Weaver's Cove project outweigh the benefit of the added natural gas to be supplied by it. Therefore, I find it to be inconsistent with the public interest to authorize the siting, construction and operation of this new LNG terminal in Fall River, Massachusetts.

Alternatives Exist

The proposed Weaver's Cove facilities include an LNG terminal and storage facility, which would be able to provide LNG for delivery via truck to peackshaving facilities in the region. Through pipe and truck, Weaver's Cove would transport up to 800 MMcf per day of natural gas to the Northeast market,

¹ Order at P 6 *citing* The Power Planning Committee of the New England Governors' Conference, Inc., *Meeting New England's Future Gas Demands: Nine Scenarios and Their Impacts*, March 1, 2005 (New England Governors' Conference Report).

beginning in 2010.² The FEIS concludes that no alternative projects would be able to meet all of the objectives of the Weaver's Cove project, since such projects would not be able to provide a new source of imported LNG for the New England peakshaving market.³ However, I believe that there are numerous gas infrastructure projects proposed to serve the New England region that present reasonable alternatives to the Weaver's Cove facility. These planned and proposed projects would introduce new sources of natural gas into the New England area by 2010. As the New England Governors' Conference Report finds, "to avoid leaving some customers without space heat in 2010 and after, additional gas supply infrastructure (either expanded pipeline capacity or expanded LNG storage capacity) or resources that reduce gas demand would have to have been added to the system" (emphasis added).⁴

There are two already-approved Eastern Canadian LNG terminals that are currently under construction and are expected to start deliveries by 2008. Irving Oil Ltd.'s Canaport LNG Project in New Brunswick will be able to vaporize and send out about 1.0 Bcf per day of natural gas. Anadarko Petroleum Corporation's Bear Head LNG facility in Nova Scotia will be able to vaporize and send out about 750 MMcf per day of natural gas to the Maritimes & Northeast Pipeline system. Anadarko recently announced that it has signed agreements for nominated capacity on a planned expansion of the Maritimes & Northeast Pipeline to accommodate the initial Bear Head sendout capacity to markets in eastern Canada and the Northeast. In addition, Tennessee Gas Pipeline Company, another pipeline that delivers gas into New England, has announced a non-binding open season for its Atlantic Supply Expansion project, which is designed to respond to the development of LNG terminals in eastern Canada and the Northeast. This project could bring an additional 250 MMcf per day into Tennessee Gas Pipeline's system at its Dracut, Massachusetts interconnection with the joint facilities of Maritimes & Northeast Pipeline and Portland Natural Gas Transmission System.

There are other LNG import terminals being planned for the New England region. Neptune LNG and Excelerate Energy L.L.C. have independently proposed to build LNG import facilities off the coast of Massachusetts that would provide a new source of LNG into the New England market area. Neptune LNG's facility would have an average sendout capacity of 400 MMcf per day and a peak capacity of 750 MMcf per day.⁵ Excelerate Energy L.L.C.'s Northeast Gateway Project

² The new/existing Brightman Street construction will delay the proposed schedule for the LNG terminal operations by at least two to three years until 2010. *See* Order at P 108 & n. 58.

³ See pages 3-27-28.

⁴ New England Governors' Conference Report at page viii.

⁵ Neptune LNG filed a deepwater port application with the Coast Guard on

would have a baseload capacity of 400 MMcf per day and a peak capacity of 800 MMcf per day. Algonquin Gas Transmission, LLC has filed an application with the Commission to construct and operate a 16-mile pipeline that will connect Algonquin's New England-area natural gas pipeline system to the proposed Northeast Gateway Project.

In addition to these LNG terminals with associated pipeline expansion, Tennessee Gas Pipeline Company has completed a binding open season for its proposed Northeast ConneXion-New England project. This project would provide an additional 136 MMcf per day of natural gas from Texas and Louisiana by increasing compression capacity at existing compressor stations in New York and Massachusetts.

Significant Safety Issues Are Raised

In my view, this project raises significant, unresolved safety issues, especially in the event of an intentional breach of an LNG vessel as it passes by densely populated shoreline communities en route to the LNG import terminal in Fall River. The LNG vessels must pass under or through four well-traveled bridges and transit 21 nautical miles from the entrance of Narragansett Bay at Brenton Point through the Mount Hope Bay and up the Taunton River. As detailed below, the vessels will present a potential hazard to the people and buildings located along the passageway during the 4-hour transit to the terminal and the 10 to 12 hours while the vessels are docked and unloading cargo. Further, I believe that the lack of adequate emergency resources⁷ and the need for evacuation within a short time interval, in the event of an LNG cargo release, present serious obstacles to creating a viable Emergency Response Plan and evacuation plan.

The inbound transit through the East Passage of Narragansett Bay would

February 15, 2005.

⁶Excelerate Energy, L.L.C. and Algonquin Gas Transmission, LLC filed environmental notification forms for the Northeast Gateway LNG Project and associated pipeline projects with the Secretary of the Massachusetts Executive Office of Environmental Affairs on March 15, 2005. Excelerate Energy, L.L.C. has commenced commercial operations of its Gulf Gateway Project in the Gulf of Mexico, which uses the same technology as the proposed Northeast Gateway Project.

⁷ See, e.g., June 9, 2005 comments from Fire Chief David L. Thiboutot, City of Fall River; Fire Chief Stephen Rivard, Town of Somerset; and Dr. Bruce S. Auerbach, the Vice President and Chief of Emergency and Ambulatory Services at Sturdy Memorial Hospital in Attleboro, Massachusetts.

pass by Newport, Middletown and Jamestown, Rhode Island. After turning at Sandy Point, the LNG vessels would pass by Bristol, Massachusetts, and in the vicinity of the Mount Hope Bridge. The LNG vessel would then travel within the 400-foot-wide channel through Mount Hope Bay and the Taunton River and would pass by Woodman Street and the south of Fall River, the State Pier near the center of Fall River, the Braga Bridge, and Somerset. The FEIS concludes that "[s]ome areas of development along the shoreline in the path of the LNG vessel transit in Rhode Island and Massachusetts could be within a potential transient hazard area, while parts of North Fall River would be exposed to a potential hazard while the LNG vessel is at the dock and unloading cargo." I agree with this assessment, and it is a significant concern to me.

Specifically, the FEIS states that, assuming an LNG vessel transits the Taunton River at 3 knots while under tug assist, the adjacent communities located within a 4,340 to 4,810-foot distance to the 1,600 Btu/ft²-hr thermal radiation level for a 2.5 and 3-meter diameter hole would be exposed to a potential transient hazard "for less than 30 minutes." While transiting the East Passage to Sandy Point at 10 knots, the transient hazard to shoreside communities would be "less than 10 minutes." A temporary hazard would also exist around the slip during part of the 10- to 12-hour period while the LNG vessel is at the dock and unloading cargo. For a spill in the vicinity of the dock, approximately 1,600 to 2,100 buildings, including single-family residences and multi-family units, would be within the temporary hazardous area. 11 Also located in this area are an elementary school, a rehabilitation and nursing center, a public housing project, an apartment building and a MassHighway facility. 12 I find the length of these exposures to the people along the transit route and the vicinity of the dock to be unacceptable.

The FEIS also evaluates the potential impact of an LNG spill on equipment and infrastructure. A thermal radiation level of 10,000 Btu/ft2-hr could potentially damage equipment and infrastructure. A fire associated with a potential spill in the vicinity of the Weaver's Cove's dock, resulting from a nominal cargo tank hole from an intentional event could expose the Somerset power plant, the proposed LNG storage tank, approximately one-half mile of Route 79 and one-half mile of proposed commuter rail to a thermal radiation level of 10,000 Btu/ft²-hr for 10 to 15 minutes. 13

⁸ See page 4-279. ⁹ See id.

¹⁰ See page 4-280.

¹¹ See id.

¹² See id.

¹³ See id.

For potential spills at the new Brightman Street Bridge and the Braga Bridge, the number of residences, buildings, schools and other facilities located within the 1,600 Btu/ft²-hr transient hazard area would be approximately 1,600 to 2,300 and 1,200 to 1,600, respectively. At Fall River near Woodman Street, approximately 800 to 1,200 residences would be located in the transient hazard area. Approximately 100 to 300 residences and buildings would be located in the transient hazard area at the Mount Hope Bridge. The western-most portions of the U.S. Naval Station in Newport would also lie within a 1,600 Btu/hr-ft² transient hazard area. The transient hazard area from an LNG vessel spill in the main channel of the East Passage in the vicinity of Newport and Jamestown would not affect most shoreside areas. However, potential spill locations in deepwater areas outside the main channel and closer to shore were also evaluated. For a spill outside the normal route, an estimated 660 to 720 and 420 to 610 residences in Jamestown and Newport, respectively, would fall within these potential transient hazard areas.¹⁴ Again, these threats present risks that should not be run, given that alternatives to the Weaver's Cove facility are available.

This order requires Weaver's Cove to develop emergency evacuation routes for the areas along the route of the LNG vessel transit prior to construction and to develop an initial Emergency Response Plan, including evacuation, prior to initial site preparation, in cooperation with local groups. However, in light of the proposed transit of the LNG vessel past densely populated shoreline communities and well-traveled bridges, local officials' concerns about the lack of adequate emergency resources, and the need for evacuation within short time intervals in case of a release of LNG cargo, I believe that there are serious impediments to the development of a viable, effective Emergency Response Plan and evacuation plan in the area.

Adverse Environmental Impacts Will Occur

This project would have significant adverse environmental impacts due to dredging and LNG ship ballasting. To allow LNG ships to transit, dock and turn in the Taunton River, the existing navigation channel and a portion of the east channel must be permanently deepened to a depth of 37 feet below Mean Lower Low Water (MLLW). In addition, horizontal dredging would take place within the existing 400-foot wide channel and the turning basin would need to be permanently enlarged and deepened to 41 feet MLLW. The project would require the dredging of up to 2.6 million cubic yards of sediment from the Mount Hope Bay and Taunton River and a turning basin to enable LNG ships to transit, dock

¹⁴ See id.

¹⁵ See Order at P 98-99.

and turn in the Taunton River. 16 The dredging would disturb about 191 acres of river and bay bed.¹⁷ At this time, it remains uncertain how Weaver's Cove will dispose of the contaminated dredged sediment from the Taunton River and the New Hope Bay. 18

The proposed project area serves as an important winter flounder spawning and juvenile development habitat. The project would have adverse effects on this species, including the temporary loss of 6.2 acres of winter flounder spawning habitat and a permanent loss of 11 acres of winter flounder habitat due to the deepening and widening of the turning basin. Further, there would be entrainment or impingement of larvae and eggs during the operation of the LNG terminal when ballast water would be withdrawn from the river by ships during offloading of LNG. A total of 980 million gallons of water could be withdrawn each year from the river for ship ballast, which would entrain and/or impinge larvae and eggs. The cumulative impact of these losses, when combined with the numbers lost as the result of power plant operations in the area, will further stress the fish populations in Mount Hope Bay and Narragansett Bay. 19

Socioeconomic Impacts Will Affect the Communities

This project will also cause socioeconomic impacts on the affected communities. Weaver's Cove estimates the arrival and departure of 50 to 70 LNG ships per year. Vehicle traffic delays resulting from the temporary closure of the Brightman Street Bridge could span 16 minutes per transit. The temporary closures of the Pell Bridge, Mount Hope Bridge, and Braga Bridge during the LNG vessel transit would result in delays ranging from 6 to 8 minutes per transit. The safety and security zone enforced around each LNG ship and around the ship unloading facility while it is docked could result in recreational boating delays of up to 60 minutes. For boaters near or upstream of the facility, there could be an additional 60-minute delay while the LNG ship is berthed or turned. In addition, recreational boaters could be prevented from boating or fishing in the vicinity of a moored LNG ship for approximately 24 hours.

¹⁶ See FEIS at page 3-70. ¹⁷ See page 2-25.

¹⁸ The Massachusetts Department of Environmental Protection is still reviewing Weaver's Cove's proposal to dispose of the dredged sediment on the project site. The U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency are still evaluating whether offshore disposal of some of the dredged sediment is suitable.

¹⁹ See page 4-304.

Conclusion

In sum, the existence of reasonable alternatives for bringing much-needed natural gas supplies to New England, combined with safety concerns posed by the unique geography of the area and the close proximity of densely populated communities along the LNG vessel transit path and near the dock, the adverse impacts on the environment, and the socioeconomic impacts of this proposed LNG facility, lead me to conclude that the Weaver's Cove project is not consistent with the public interest under NGA section 3. Therefore, I respectfully dissent from this order.

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