FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E/LNGE
Docket No. CP06-54-000
Broadwater Energy LLC

June 20, 2006
Sandra Barnett, Environmental Affairs Manager
TransCanada Corporation
450 –1 Street SW
Calgary, Alberta, Canada T2P5H1

RE: Design/Engineering Review of the Proposed Broadwater LNG Project

Dear Ms. Barnett:

As discussed by Commission and U.S. Coast Guard staff at the cryogenic design and technical conference held on June 6, 2006, our review can be completed when certain information regarding the design and engineering of the floating storage and regasification unit, including the yoke mooring system, has been provided. This information is necessary for the design/engineering review being performed by Commission staff and the U.S. Coast Guard, as well as for the completion of the Waterway Suitability Assessment process. When all the requested information is provided, we will establish a revised schedule for completion of the Draft Environmental Impact Statement. This material has been previously requested in the Cryogenic Data Request dated May 5, 2006, as well as in staff's November 23, 2005 comments on draft Resource Report 13.

Please provide the information described in the enclosure to assist in our analysis. You may request confidential treatment of your responses to this enclosure pursuant to 18 CFR § 388.112 and PL01-1. File your responses in accordance with the provisions of the Commission's Rules of Practice and Procedure. In particular, 18 CFR § 385.2010 (Rule 2010) requires that you serve a copy of the response to each person whose name appears on the official service list for this proceeding.

The response must be filed with the Secretary of the Commission at:

Magalie R. Salas, Secretary
Federal Energy Regulatory Commission
888 First St., N.E., Room 1A
Washington, DC 20426

File all responses under oath (18 CFR § 385.2005) by an authorized Broadwater Energy LLC representative and include the name, position, and telephone number of the respondent to each item.

In addition, your June 13, 2006 letter concerning the appointment of the American Bureau of Shipping as a Certifying Entity for the proposed Broadwater LNG project has been received by Commission staff and is under review.

Thank you for your cooperation. If you have any questions, please call me at 202-502-8045.

Sincerely,

Jim Martin
Environmental Project Manager
Office of Energy Projects

Enclosure

cc: Public File, Docket No. CP06-54-000

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Enclosure

Broadwater Energy LLC
Docket No. CP06-54

CRYOGENIC INFORMATION REQUEST

1. The front end engineering process design of the facility that has been filed to date lacks sufficient detail for Commission staff to evaluate potential deficiencies and inconsistencies in the design. In addition, the filed piping & instrumentation diagrams (P&ID) are currently at a preliminary design stage which does not provide sufficient information for a conventional hazard identification (HAZID) review. Provide a revised design which has been developed to the extent that a HAZID review of the revised P&IDs and system design can be carried out to address operability, reliability and safety. The revised design features and information should include at least the following:

   a. Vendor equipment data consistent with the process and mechanical design requirements of the facility;

   b. An unloading system which includes: check valves in the unloading arm lines, downstream of the LNG shutoff valves; bypass valves around the LNG unloading arm shutoff valves to displace LNG to storage; removable spool, or blind, in the vapor cross-over line between Z-1101C and Z-1102; and relief valves, vents and drains as required;

   c. LNG storage process piping and instrumentation design shown on the P&IDs;

   d. Flow measurement and control of LNG tank fill rates and provisions to prevent unloading transfer from exceeding the maximum allowable fill rate;

   e. Recondenser equipped with recycle to storage sized for startup, continuous pump recycle, and emergency liquid return to storage;

   f. High-pressure pump minimum flow recycle control capable of continuous recycle flow control and independent of the vaporizer operation;

   g. Vaporizer LNG flow control independent of high-pressure pump recycle control;

   h. Flow and temperature monitoring of the heating medium with interlock shutdown of the LNG flow at heating medium imbalance;

i. Provision of high pressure boiloff compression to eliminate flaring in the event that the sendout system is not operable;

j. Consistent use of 316L stainless steel through the superheaters;

k. Piping specifications that address the need to ensure that the wall thickness of branch and small bore piping containing LNG and LNG vapor is specified for strength, in addition to pressure and temperature requirements; and

l. Shutoff valves, specified to be fire-safe and fail-closed, which isolate systems including, but not limited to, the recondenser sendout pumps, vaporizers, and superheaters.

2. As indicated in the letter to the Commission from the Captain of the Port Long Island Sound of June 14, 2006, provide a load and survivability analysis for the yoke mooring system based on an allision with the FSRU, mooring jacket and yoke structure by a bulk carrier or tanker displacing 90,000 deadweight tons. The analysis must include information regarding the extent to which the proposed design of the yoke mooring system includes all possible redundancies such as the potential use of emergency anchors.

3. Specify the process that Broadwater will use in the further development of the design to refine the previously provided general list of rules and codes into specific standards used to design and build the various systems and components of the FSRU. This process must clearly describe the method for determining applicability and relative stringency for each particular standard when multiple standards have been identified. In addition, please specify how the comparison and adoption of standards would be documented and approved by the FERC and/or the U.S. Coast Guard. Finally, the role of the third party in the standards evaluation and approval process must be clearly described.