

FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:  
OEP/DG2E/Gas Branch 3  
Broadwater LNG Project  
Docket No. CP06-54-000  
CP06-55-000

March 31, 2006

Ms. Sandra Barnett, Environmental Affairs Manager  
TransCanada Corporation  
450 -1 Street SW  
Calgary, Alberta, Canada T2P5H1

RE: Staff's Comments on Environmental Resource Reports

Dear Ms. Barnett:

We are providing additional environmental information requests that have not yet been fully addressed in the Resource Reports submitted with your application on January 30, 2006. While the reports satisfy the Commission's minimum filing requirements (18 CFR 380.12 and Appendix A to Part 380), additional details will be necessary to fully analyze the environmental impacts of the proposal and allow us to prepare a comprehensive environmental impact statement (EIS). Please provide the clarifications or missing information, as identified in attachment 1.

In general, most of the questions (1 through 16) are requesting updated information or clarifications regarding information in the Resource Reports submitted as part of your application. The remaining questions (17 through 29) are primarily previous Environmental Information Requests (EIRs), originally submitted to Broadwater between August 2005 and January 2006, that were not completely addressed in the application.

Please file your response 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.

**Please file a complete response within 20 days of the date of this letter.** 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

If certain information cannot be provided within this time frame, please indicate which items will be delayed and provide a projected filing date. **Failure to file timely, accurate, and complete responses will only delay the processing of this application.**

When filing documents and maps, be sure to prepare separate volumes, as outlined in **“How-to File Non-Internet Public, CEII or Privileged Material.”** This document is available on the Commission’s web site at <http://www.ferc.gov/help/how-to/file-material.asp>.

For all materials submitted, please provide one electronic copy directly to me. Also, please provide an electronic version and hard copy directly to each of the representatives of our cooperating agencies, Diane Rusanowsky of the National Oceanic and Atmospheric Administration-National Marine Fisheries Service; Russell Smith of the U.S. Army Corps of Engineers; Lingard Knutson of the U.S. Environmental Protection Agency; and Jeff Zappieri of the New York State Department of State. Also provide electronic and hard copies directly to our third-party EIS contractor.

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 and CP06-55-000

Mr. Brian D. O'Neil, Attorney for Broadwater Energy  
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Ms. Diane Rusanowsky  
National Marine Fisheries Service  
Habitat Conservation Division  
212 Rogers Avenue  
Milford, CT 06460

Mr. Russell Smith  
Operations Division, Eastern Permits  
U.S. Army Corps of Engineers, New York District  
26 Federal Plaza  
New York, New York 10278-0090

Ms. Lingard Knutson  
Environmental Review Section  
U.S. Environmental Protection Agency, Region 2  
290 Broadway  
New York, New York 10007-1866

Mr. Jeff Zappieri  
Consistency Review Unit  
New York State Department of State  
41 State Street  
Albany, NY 12231-0001

Attachment 1

Broadwater LNG Project  
Docket No. CP06-54-000 and CP06-55-000

**ENVIRONMENTAL INFORMATION REQUEST**

1. Provide updated correspondence with appropriate federal and states agencies, or entities associated with the following issues:
  - a) Agency comments and/or approvals of the turbidity and sedimentation modeling input parameters and results;
  - b) Threatened and endangered species consultation including potential impacts and appropriate mitigation for listed species associated with any Project activities including, but not limited to, any onshore facilities and LNG carrier traffic within U.S. jurisdictional waters;
  - c) Potential impacts to species protected under the Marine Mammal Protection Act;
  - d) Estimated ichthyoplankton impacts and proposed mitigation measures;
  - e) Agency comments and/or approvals of air emissions modeling input parameters (including meteorological datasets), results, and mitigation measures;
  - f) Visual resource analysis;
  - g) Compatibility of the proposed Broadwater Project with operations and future plans of the Iroquois Gas Transmission System.
2. Provide the updated plans or a status update for the plans listed below including status of approval by applicable agencies:
  - a) Spill Prevention Control and Countermeasures Plan;
  - b) Broadwater's Wetland and Waterbody Construction and Mitigation Procedures;
  - c) Contingency construction plans across Stratford Shoal;
  - d) Hydrostatic testing protocol;
  - e) Water quality monitoring plan;
  - f) Unanticipated Discovery Plan;
  - g) Color scheme for the FSRU hull and above-deck structures, and the YMS;
  - h) Emergency Response Plan; and
  - i) Operation and Maintenance Plan.
3. Provide an updated summary of the status of all federal, state, and local government permits. Include all written correspondence to and from the agency, the agency and individual contacted, the date Broadwater submitted the application (or a timetable for the application's submission), and whether or not Broadwater has received a permit. If the permit has been received, provide a copy of it including all conditions or stipulations attached to the permits received.

4. Revise the following Project-related illustrations from the Resource Reports (or provide the appropriate editable files):
  - a) RR1, Figure 1-7: Change “Flare to “Emergency Flare,” “HP Pumps” to “Pumps,” and “shell and tube” to “Shell-and-Tube”
  - b) RR1, Figure 1-8a: Spell out “SSSV”
  - c) RR1, Figure 1-8b: Change “30 In. O.D. Riser” to “30-inch Diameter Riser”
  - d) RR1, Figure 1-10: Spell out “SSSV” and label the mooring tower
  - e) RR1, Figure 1-12: Change “IGTS” to “IGTS Pipeline”
  - f) RR8, Figure 2 (Appendix D): Spell out “WHRU” and clarify the height of the FSRU since the text says 134 feet and the figure indicates 141 feet.
  - g) RR10, Figure 10-3: Depict the complete Iroquois Gas Transmission System, and correct the illustration of the Columbia Pipeline for the region illustrated. Clarify that MarketLink is part of the Transcontinental (Transco) Pipeline system.
  - h) RR10, Figures 10-4: Delete the existing pipeline transmission network.
  - i) RR10, Figures 10-13 through 10-16. Combine illustrations of individual alternative pipeline routes into one graphic.
5. Describe the feasibility of using mid-line buoys on all anchor lines for all construction vessels. Revise Figure 1-14 to accurately represent the proposed use of mid-line buoys on the quarter anchor lines.
6. Confirm whether or not fabrication of Project-related vessels and the YMS in the U.S. would entail an expansion of existing shipbuilding facilities, and, if so, identify the potential shipyards to be used, the expected impacts, and appropriate mitigation measures to avoid and minimize impacts.
7. Provide a detailed description of the inert gas scrubber process as it relates to potential introduction of chemicals or particulate matter into water, and, as appropriate, identify any potential impacts, treatment, or monitoring associated related to the water quality of related discharges.
8. Clarify the proposed methods for, and expected frequency of, any maintenance of the hull of the FSRU during operations including methods proposed to maintain adequate flow through the water intake screens. Identify any potential impacts of these activities and any measures proposed to avoid or minimize impacts to water quality and marine resources.
9. Update the estimates of ichthyoplankton loss associated with operational water intake based on results from recent site-specific field surveys.
10. While Resource Report 3 discusses potential impacts to marine mammals in general, specifically discuss potential impacts and mitigation related to pinnipeds under the Marine Mammal Protection Act. Include distances from the proposed project area to known feeding and loafing areas, and methods to minimize the potential for harassment.
11. File with the Secretary Broadwater’s response to all remaining issues listed in the NY SHPO’s December 22, 2005 letter to Ecology and Environment.
12. File with the Secretary any correspondence or documentation of consultation with the SHPO or Native American groups not previously filed with the Commission, in

particular, and response to Ecology and Environment's January 9, 2006 letter to NY SHPO.

13. Clarify the types of fuel used in construction activities and in onshore-related activities. Currently, Appendix A of Resource Report 9 does not specify fuel types for vessels and equipment named in associated spreadsheets. Consider the EPA Final Rule 40 CFR Parts 9, 69, et al., Control of Emissions of Air Pollution From Nonroad Diesel Engines and Fuel.
14. Explain why calculations for the general construction emissions in Appendix A of Resource Report 9 do not match values presented in the text of Resource Report 9 (Table 9-12), or correct them as appropriate. In addition, report PM<sub>2.5</sub> and PM<sub>10</sub> separately, and reflect the zero values for ammonia in the calculations in Appendix A.
15. Provide a copy of the air mitigation plan being prepared for submittal to the NYSDEC documenting compliance with the General Conformity regulations (40 CFR Part §51.860) for the portion of Project emissions generated in the State of New York taking into consideration all enforceable and quantifiable mitigation measures. If Project emissions exceed listed General Conformity applicability thresholds, provide detailed information documenting how the Project would demonstrate conformance with the applicable State Implementation Plan and/or Air Quality Management Plan in accordance with Title 40 CFR Part 51.858. Address each regulatory criteria listed in Part 51.858 and provide:
  - a) A detailed explanation as to whether or not the Project, in whole or in-part, would meet each requirement to demonstrate conformity; and
  - b) For each criteria being satisfied, provide all supporting information on how the Project would comply.
16. Provide technical justification to support Broadwater's conclusion that a pipeline longer than 40 miles would require intermediate compression.
17. Describe potential impacts to water quality and marine resources (e.g., sea turtles, marine mammals, and fish) from spills of chemicals used during construction and operation of the proposed Project.
18. Identify any mitigation measures that Broadwater proposes to minimize impacts to ichthyoplankton.
19. Describe the economic effects of project construction on commercial fishing and what mitigation measures Broadwater would incorporate into the project to eliminate or minimize those impacts. Identify any compensation options being considered for impacts to commercial fishermen during construction and operation.
20. Describe the likelihood and type of potential seismic impacts to the proposed Project associated with the magnitude and frequency of seismic activity (including the potential for soil liquefaction based on site-specific substrate conditions at the proposed YMS location).
21. Identify potential impacts of scouring of surface sediments along the pipeline and mooring structure. Identify any sediment stabilization methods associated with pipeline installation or the mooring structure. In addition, specify the measures used

- to protect the subsea pipeline directly beneath the FSRU and berthed LNG carriers to avoid potential impacts to the pipeline.
22. Identify each coastal zone policy element applicable to the proposed project, and provide a discussion of whether or not the proposed project would be consistent with each policy element including the rationale.
  23. Provide an estimate of the number of recreational vessels likely to be temporarily displaced during each LNG carrier transit of the Race. In addition, describe the types and estimated density of recreational vessels (by season) that use the offshore areas that LNG carriers would transit in Rhode Island/Block Island Sound between Point Judith to approximately Fishers Island. Identify any high-density locations of recreational use in this area including fishing, diving, or boating.
  24. Provide all correspondence between Broadwater and the EPA, Region 2 and the NYSDEC documenting the applicability of federal Prevention of Significant Deterioration review to the proposed Project. In particular, provide specific responses to questions posed in the EPA, Region 2 letter dated March 9, 2006 to Broadwater regarding Standard Industrial Classification (SIC) codes, detailed breakdown and discussion of emissions (unit by unit) associated with off-loading and on-board processing of the LNG, feasibility of vessels using gas turbines to generate electricity while berthed at the FSRU, and the feasibility of using low sulfur-diesel when possible.
  25. Provide quantified construction emission estimates by type of emission source, their duration, and the emissions associated with each activity. Provide data on NO<sub>x</sub>, CO, SO<sub>2</sub>, VOC, PM<sub>10</sub>, PM<sub>2.5</sub>, ammonia, and HAPS. Note that in the January 2006 Resource Report 9, PM<sub>10</sub> and PM<sub>2.5</sub> emission estimates were lumped together and ammonia and HAPS emissions were not identified in either the construction emission study or the emissions calculations workbook, and little, if any, explanatory text was provided. Refer to EPA AP-42.
  26. Explain why potential nuisance emissions for either onshore or marine receptors are not anticipated. In addition, provide emissions estimates for idling and operating vessels and trucks associated with the onshore facility, as well as potential impacts and mitigation measures.
  27. Quantify marine-related emission impacts to air quality in the region; discuss the feasibility of emission controls; and demonstrate compliance with associated regulations. Please detail the sources of the emission estimates, whether from manufacturer derived estimates, EPA AP-42 tables, or other models. In January 2006, a final report was prepared for EPA that provided guidance in preparing port emission inventories; refer to "Current Methodologies and Best Practices in Preparing Port Emission Inventories," Final Report, prepared by ICF Consulting for EPA (January 5, 2006) to update the emission inventory.
  28. Provide an assessment of potential noise impacts to birds and marine animals during operation of the FSRU (including noise from tugs, supply and service vessels, and LNG carriers), as well during pile-driving activities. In addition, clarify expected decibel level and duration underwater at various distances from these noise-

generating activities (particularly pile-driving) and potential impacts at those distances to biological resources, and discuss potential underwater noise mitigation measures to avoid or minimize impacts, such as the use of air bubble curtains or vibratory piling methods.

29. Provide technical justification that ambient airborne noise levels of 50 to 55 decibels typically occur in the vicinity of the proposed site for the FSRU. Since the values referenced in Resource Report 9 (January 2006) were for ambient noise measured at locations other than Long Island Sound, present additional support that would be more representative of ambient noise in the project area.