UNITED STATES OF AMERICA104 FERC ¶ 61, 269
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;
William L. Massey, and Nora Mead Brownell.

Cameron LNG, LLC (formerly d/b/a Hackberry LNG Terminal, L.L.C.)	Docket Nos. CP02-374-000, CP02-374-001 CP02-376-000, CP02-376-001 CP02-377-000, CP02-377-001 CP02-378-000, CP02-378-001

ORDER ISSUING CERTIFICATES AND GRANTING REQUESTS FOR REHEARING

(Issued September 11, 2003)

1. On December 18, 2002, the Commission, among other things, preliminarily approved, subject to environmental review, Hackberry LNG Terminal, L.L.C.'s (Hackberry) proposals (1) under Section 3 of the Natural Gas Act to site, construct, and operate a liquefied natural gas (LNG) terminal near Hackberry, Louisiana and (2) under Section 7(c) of the Natural Gas Act to construct and operate a 35.4-mile long pipeline from the proposed LNG terminal to Transcontinental Gas Pipe Line Corporation's (Transco) compressor station in Beauregard Parish, Louisiana (the Hackberry LNG project).[1] We also granted Hackberry authority to provide LNG terminalling service at the rates, terms, and conditions mutually agreed to with its customer, but did not require Hackberry to offer firm and interruptible open-access terminalling service or maintain a tariff and rate schedule for that service. We required that Hackberry file its terminalling contract prior to the commencement of construction of the LNG terminal.

2. On May 12, 2003, Sempra Energy LNG Corporation (Sempra Energy) filed a letter with the Commission, stating that it had acquired Hackberry from Dynegy Midstream Services, Limited Partnership and had changed Hackberry's name to Cameron LNG, LLC (Cameron). The findings made in the December 18 order will apply to Cameron, the new project sponsor.[2]

[1] Hackberry LNG Terminal, L.L.C., 101 FERC ¶ 61,294 (2002).

[2] Hereinafter, we will refer to Cameron as the applicant in this proceeding.

3. Cameron filed a timely request for rehearing of the December 18 order, contending that the three-year deadline for constructing the Hackberry LNG project was not sufficient and that it should only be required to file its terminalling contracts with affiliated customers.

4. We have completed our environmental review of the Hackberry LNG project. This order issues the necessary authorizations contemplated by the December 18 order, as discussed and conditioned below. This order also grants Cameron's rehearing request to extend the construction deadline and eliminates the contract reporting requirement.

I. Background

5. In its application, Cameron proposed under Section 3 of the Natural Gas Act to site, construct, and operate an LNG terminal near Hackberry, Louisiana; to construct and operate under Section 7(c) of the Natural Gas Act a 35.4-mile long, 36-inch diameter pipeline from the tailgate of the LNG terminal to Transco's compressor station in Beauregard Parish, Louisiana; to provide firm and interruptible terminal service and firm and interruptible transportation service under Subpart G of Part 284; and to engage in routine construction, maintenance, and operational activities related to the proposed pipeline under Subpart F of Part 157.

6. The December 18 order preliminarily approved Cameron's proposal to construct and operate the LNG terminal because the proposal was not inconsistent with the public interest under Section 3. The December 18 order, however, changed our policy for regulating LNG import facilities by not requiring Cameron to offer open-access terminalling service or maintain a tariff and rate schedule for that service. Rather, the order granted Cameron authority to provide LNG terminalling service at the rates, terms, and conditions mutually agreed to with a customer, subject to the condition that Cameron file its contract with the customer prior to the commencement of construction of the LNG terminal.[3]

7. The December 18 order also preliminarily approved Cameron's proposals to construct and operate the 35.4-mile long pipeline and Cameron's proposals to provide open-access transportation service under Subpart G of Part 284 and to engage in certain routine activities and transactions under Subpart F of Part 157.

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[3] During the open season, Dynegy Marketing & Trade, an affiliate of Hackberry, the original applicant, subscribed to 100 percent of the project's terminalling capacity. After Sempra Energy purchased Hackberry, Dynegy Marketing withdrew from the project. At present, Cameron, the new project proponent, has no terminalling customers.

8. Finally, Ordering Paragraph (F) in the December 18 order provided that Cameron's proposed facilities be constructed and placed into operation within three years of the date of the final order in this proceeding.

II. Cameron's Request for Rehearing

9. Cameron contends that the Commission did not allow it sufficient time to construct the Hackberry LNG project, asserting that the minimum time frame for constructing the LNG terminal is 37 months. Cameron requests that the three-year construction time frame be increased to five years in order to provide a reasonable cushion in case contingencies arise.

10. Cameron contends that potential shippers have expressed concern about the nature and scope of the contract filing requirement in the December 18 order. Cameron contends that the contract filing requirement should only apply to affiliate transactions and, in any event, should not compel the public disclosure of commercially sensitive information.

III. Discussion

11. Cameron requests that it be given five years to construct its proposed facilities. Since it appears that Cameron will need more than three years to construct the proposed LNG terminal and place the terminal into service, we will modify Ordering Paragraph (F) in the December 18 order to provide Cameron with up to five years from a final order in this proceeding to complete its proposed facilities. Cameron's request for rehearing is granted.

12. Cameron contends that the contract filing requirement in Ordering Paragraph (G) should only apply to affiliate transactions. In a Section 7(c) case, the Commission requires an applicant to file executed contracts where precedent agreements had been offered by the applicant as evidence of the need for the project. In the case of the LNG terminal, however, we authorized the siting, construction, and operation under Section 3. The standard for approving a project under Section 3 is different from Section 7. Section 3 requires only that the applicant show that its proposal is "not inconsistent" with the public interest, unlike Section 7, which requires a finding that a proposal is "required by the present of future public convenience and necessity." In addition, under Section 3, an applicant has no power of eminent domain. Therefore, we see no need for Cameron to file its contracts for LNG terminalling service with the Commission. Ordering Paragraph (G) in the December 18 order is modified to eliminate the contract filing requirement.

IV. Environmental Review

13. Our staff prepared a final Environmental Impact Statement (EIS) for the Hackberry LNG project.[4] On August 22, 2003, the Environmental Protection Agency published in the Federal Register a Notice of Availability of the final EIS. Approximately 460 copies of the final EIS were mailed to agencies, groups, and individuals on the mailing list.

14. The final EIS addressed purpose and need, alternatives, geology, soils and sediments, water resources, wetlands and vegetation, wildlife and aquatic resources, land use, socioeconomics, cultural resources, air quality and noise, safety, and cumulative impacts. The United States Department of the Interior, Fish and Wildlife Service was a cooperating agency in the preparation of the final EIS.

15. The final EIS addressed comments from 17 individuals who attended the public meeting held on April 22, 2003, and 18 comment letters filed in response to the draft EIS.[5] The commenters' primary concerns related to wetland and dredging impacts, alternative LNG terminal sites, marine congestion traffic, and LNG safety.

16. On May 6 and 16, 2003, Temple-Inland, Inc. filed comment letters to the draft EIS.[6] On August 26, 2003, Temple-Inland filed a comment letter to the final EIS. The comment letters and memorandums supported an alternative pipeline route avoiding Temple-Inland's Crown Point Distinctive Site between mileposts 28.2 and 29.2 along the proposed pipeline route.[7] In addition, the August 26 letter stated that the final EIS failed to include the May 16 letter.

17. Appendix N of the final EIS inadvertently failed to list Temple-Inland's May 16 comment letter. Nevertheless, in response to Temple-Inland's May 6 and 16 letters, our

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[4] We issued the final EIS on August 14, 2003.

[5] We issued the draft EIS on March 28, 2003.

[6] The May 16 comment letter included memorandums from The Nature Conservancy and the Louisiana Natural Heritage Program.

[7] Temple-Inland defines its Distinctive Sites as areas of unique ecologic, geologic, cultural, or historic significance. Temple-Inland manages these sites as part of its commitment to the American Forest and Paper Association's *Sustainable Forestry Initiative Standard* and in accordance with a memorandum of agreement with The Nature Conservancy.

staff requested additional information about the crossing of the Crown Point site in a data request sent to Cameron on May 30, 2003. Temple-Inland's letters, and Cameron's response to the data request, were the basis for the Temple-Inland route variation analysis in Section 3.3.2.2 of the final EIS, as well as the discussion in Section 4.2.5.

18. In response to Temple-Inland's May 6 and 16 comment letters, the final EIS evaluated two route variations to avoid the Crown Point site. The final EIS concluded that neither of these route variations provided a clear environmental advantage over the proposed route. Temple-Inland's comment letters also contend that the proposed construction would impact valuable bottomland natural communities and would cross natural longleaf pine savannah that it wishes to protect and conserve for its cultural, ecological, and historic value. The final EIS found that Cameron's proposed construction through the Crown Point site would avoid impact on valuable bottomland natural communities through the use of two horizontal directional drills. Based on Cameron's biological surveys, the final EIS concluded that pipeline construction within this sensitive area would not significantly affect valuable upland communities. In addition to the proposed mitigation measures, the final EIS included an environmental condition, which is attached to this order (condition 48), to further minimize right-of-way disturbance and any impact on natural longleaf pine savannah across Temple-Inland's site.

19. In its August 26 letter, Temple-Inland contends that the proposed pipeline may impact usable foraging habitat for the red-cockaded woodpecker, a federally listed species. However, based on Cameron's red-cockaded woodpecker surveys, the final EIS found that the proposed pipeline is not likely to adversely affect the red-cockaded woodpecker. The Fish and Wildlife Service concurred with this determination.

20. Temple-Inland contends that the Crown Point site possesses historical significance and that archaeological material could be present. In addition, Temple-Inland states that it has "submitted a request for a comprehensive review from the Louisiana State Historic Preservation Office (SHPO) to determine eligibility for listing on the National Register of Historic Places (NRHP)." Cameron's cultural resources survey did not locate any cultural resources between milepost 26 and the terminus of the proposed pipeline. Our staff and the Louisiana SHPO reviewed and concurred with the findings of the report resulting from this survey.

21. However, Section 4.2.10.1 of the final EIS noted that the proposed route segment between mileposts 29.0 and 29.5 in the Crown Point site may not have been surveyed for cultural resources. For this reason, our staff recommended an environmental mitigation measure (condition 51) requiring Cameron to clarify whether the correct route was surveyed and, if not, to conduct a survey. Condition 51 also requires Cameron to provide the resulting report, any required treatment plan, and the Louisiana SHPO's comments on

the report and treatment plan to the Commission. If an additional survey is required, compliance with this condition will ensure that any cultural resources eligible for the NRHP between these mileposts will be identified and avoided or subject to treatment in order to mitigate effects to the resources. If the correct route was surveyed, the SHPO's review of the proposed route through this area has already been accomplished and no cultural resources have been identified.

22. We concur with the conclusion in the final EIS that Cameron's proposed construction techniques and the recommended mitigation measures attached to this order would adequately minimize any adverse impact from construction in the Crown Point Distinctive Site. We also conclude that the two route variations do not provide a clear environmental advantage over the proposed route.

23. Based on information provided by Cameron and further developed by field investigations, literature research, alternative and route variation analyses, and contacts with Federal, state, and local agencies and individual members of the public, the final EIS determined that construction and operation of the Hackberry LNG project would result in limited adverse environmental impact.

24. As discussed in the final EIS, approximately 55 acres of estuarine emergent wetland would be permanently affected by construction of the proposed terminal. To compensate, Cameron proposed to create at least 85 acres of coastal marsh in an area near the proposed terminal site using material dredged during construction. Use of the dredge disposal sites would require authorization from the United States Army Corps of Engineers (COE), with input from the National Marine Fisheries Service, the Louisiana Department of Environment Quality, and the Louisiana Department of Wildlife and Fisheries. The construction of the coastal marsh would be in accordance with permit requirements of the COE and the Louisiana Department of Natural Resources. The final EIS recommended that Cameron, prior to implementation, submit a final compensatory wetland mitigation plan to these agencies.

25. The final EIS discussed alternatives, including no action or postponed action; system alternatives; offshore LNG terminals; alternative onshore LNG plant sites; pipeline route alternatives; and route variations. The alternatives analysis in the final EIS found no reasonable alternatives that would be environmentally preferable to the proposed site.

26. The final EIS evaluated potential congestion impacts from additional LNG ship traffic. The operation of LNG vessels should have a similar impact as other large vessels currently using the Calcasieu Ship Channel and should cause no more disruption than the vessel traffic increases planned by other Channel users. The final EIS recommended

several mitigation measures that would benefit all Channel users and that may reduce some of the current sources of vessel delays.

27. The final EIS included an analysis of public safety issues associated with the Hackberry LNG project. 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 land-based LNG spills, analyzed the safety aspects of LNG transportation by ship, and reviewed issues related to security and terrorism. Several recommendations were made, including provisions for a barrier to prevent LNG from flowing outside the plant property in the unlikely event of primary and secondary storage tank failures. This recommendation drew extensive discussion at a cryogenic design and technical conference held in Sulphur, Louisiana on April 23, 2003, and is discussed in detail on pages 4-58 to 4-61 of the final EIS. In addition, in consultation with the United States Department of Transportation's Office of Pipeline Safety, the final EIS recommended that Cameron ensure that thermal radiation and flammable vapor exclusion zones remain under its legal control, or that alternative mitigation measures, approved by the Department of Transportation, are used to satisfy the regulations under 49 C.F.R. Part 193.

28. We will modify environmental condition 36 in the final EIS to provide that the Director of the Office of Energy Projects (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 in case of significant safety-related incidents.

29. We have reviewed the information and analysis contained in the final EIS regarding the potential environmental effect of the project. Based on our consideration of this information, we agree with the conclusions presented in the final EIS and find that Cameron's project is environmentally acceptable, if the project is constructed and operated in accordance with the recommended environmental mitigation measures in the appendix to this order. Thus, we are including the environmental mitigation measures recommended in the final EIS as conditions to the authorizations issued to Cameron in this order.

30. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this certificate. We encourage cooperation between interstate pipelines 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.[8]

31. Cameron 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 Cameron. Cameron shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

V. Conclusion

32. Having previously made preliminary findings based on all non-environmental issues relating to Cameron's application, and having now conducted an environmental review of the proposal, we find that the public convenience and necessity require the granting of the requested authorizations. This order incorporates the findings with respect to the non-environmental issues contained in the preliminary determination to the extent they are not modified herein, and constitutes the Commission's final decision on Cameron's request for authorizations.

33. At a hearing held on September 10, 2003, 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 authorizations sought herein, and upon consideration of the record,

The Commission orders:

(A) In Docket No. CP02-378-000, Cameron is authorized under Section 3 of the Natural Gas Act to site, construct, and operate its LNG terminal near Hackberry, Louisiana, as more fully described in this order and in the application.

(B) In Docket No. CP02-374-000, a certificate of public convenience and necessity is issued to Cameron under Section 7(c) of the Natural Gas Act authorizing it to construct and operate a 35.4-mile long pipeline, as more fully described in the order and in the application.

(C) In Docket No. CP02-376-000, a blanket transportation certificate is issued to Cameron under Subpart G of Part 284.

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[8] See, e.g., Schneidewind v. ANR Pipeline Co., 485 U.S. 293 (1988); National Fuel Gas Supply v. Public Service Commission, 894 F.2d 571 (2d Cir. 1990); and Iroquois Gas Transmission System, L.P., et al., 52 FERC ¶ 61,091 (1990) and 59 FERC ¶ 61,094 (1992).

(D) In Docket No. CP02-377-000, a blanket construction certificate is issued to Cameron under Subpart F of Part 157.

(E) Ordering Paragraph (F) in the December 18 order is modified to provide that Cameron's facilities must be completed and made available for service within five years of the date of this order, pursuant to paragraph (b) of Section 157.20 of the regulations.

(F) Ordering Paragraph (G) in the December 18 order is modified to delete the provision that Cameron shall file its service agreement prior to the commencement of construction.

(G) Cameron shall comply with the environmental conditions contained in the appendix to this order.

(H) Cameron 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 Cameron. Cameron shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

By the Commission.

(S E A L)

Magalie R. Salas,
Secretary.

Appendix

Environmental Conditions for the Hackberry LNG Project

1. Cameron 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 final EIS, unless modified by the Commission's order. Cameron 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 OEP before using that modification.

2. The Director of OEP has delegated 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. **Prior to any construction**, Cameron 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.

4. The authorized facility locations shall be as shown in the final 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**, Cameron 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.

   Cameron's exercise of eminent domain authority granted under Section 7(h) of the Natural Gas Act in any condemnation proceedings related to this order must be consistent with these authorized facilities and locations. Cameron's right of eminent domain granted under Section 7(h) does not authorize it to increase the size of its natural gas pipeline to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

5. Cameron 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.

6. **Within 60 days of the acceptance of this certificate** and **before construction** begins, Cameron shall file an initial Implementation Plan with the Secretary for the review and written approval by the Director of OEP describing how Cameron will implement the mitigation measures required by this order. Cameron must file revisions to the plan as schedules change. The plan shall identify:

a. how Cameron 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 Cameron 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 Cameron's organization having responsibility for compliance;

f. the procedures (including use of contract penalties) Cameron 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.

7. Cameron 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.

8. **Within 30 days of placing the certificated facilities in service**, Cameron 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 Cameron 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.

Environmental conditions 9 through 41 apply to construction and operation of the LNG Terminal.

9. Cameron shall file with the Secretary a final plan for obtaining fill material for construction of the Hackberry terminal. For each borrow site selected for use, the plan shall include:

a. a description of the existing land use/cover type;

b. documentation of landowner approval;

c. whether any cultural resources or federally listed threatened or endangered species would be affected; and

d. whether any other environmentally sensitive areas are within or abutting the borrow area.

All selected borrow sites should be clearly identified on topographic maps and aerial photographs. The borrow pit plan shall be submitted to the Director of OEP for review and approval **prior to construction**.

10. Cameron shall prepare a final compensatory wetland mitigation plan, including detailed plans and specifications, prepared in consultation with the COE, the National Marine Fisheries Service, the Fish and Wildlife Service, the Louisiana Department of Wildlife and Fisheries, the Louisiana Department of Natural Resources, and the Louisiana Department of Environment Quality. This plan shall include a monitoring plan and identification of success criteria and remedial measures, as necessary, to ensure mitigation success. The mitigation plan shall also include mitigative measures that would be implemented to minimize impacts to adjacent wetland areas and wetlands crossed by the temporary discharge pipelines. The wetland mitigation plan shall be filed with the Secretary for review and written approval of the Director of OEP **prior to implementation**.

11. Cameron **shall not begin construction** until it has received the Louisiana Department of Natural Resources' determination that the project is consistent with the Louisiana Coastal Zone Management Program, and has filed a copy of the consistency determination with the Secretary.

12. Cameron, in cooperation with the Louisiana Department of Transportation and Development and other responsible transportation agencies, shall prepare a Traffic Management Plan that details specific measures that would be used to control traffic and maintain traffic flow along State Highway 27 during construction of the Hackberry terminal. Aspects of the plan may include, but are not limited to, traffic control measures, installation of a left-turn lane, traffic signage requirements, traffic control personnel, construction and delivery hours, emergency vehicle access provisions, and/or nightly shut-down procedures. The Traffic Management Plan shall be filed with the Secretary for review and written approval of the Director of OEP **prior to implementation**.

13. Cameron shall defer construction of the terminal facilities and use of all staging, storage, and temporary work areas and new or to-be-improved access roads until:

a. Cameron files with the Secretary a cultural resources survey report for the dredge disposal areas and the borrow sites, any required treatment plan, and the SHPO's comments on the report and any plan; and

b. the Director of OEP reviews all cultural resources survey reports and plans and notifies Cameron in writing that construction may proceed.

All material filed with the Commission 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.**".

14. Cameron shall file a noise survey with the Secretary **no later than 60 days** after placing the Hackberry terminal in service. If the noise attributable to the operation of the Hackberry Terminal exceeds an L_{dn} of 55 dBA at any nearby noise sensitive areas, Cameron shall file a report on what changes are needed and shall install additional noise controls to meet that level **within one year** of the in-service date. Cameron shall confirm compliance with this requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls.

15. Cameron shall provide a barrier to prevent LNG from flowing outside the plant property in the event that the primary and secondary storage tank containers of a single tank fail. The barrier shall be designed to allow removal of rainwater (or any spill over from a storm) without open drainage. Cameron shall submit the final design of this barrier to the Commission staff for review and approval **prior to construction**.

16. A contingency plan for outer containment failure shall be included in the company's emergency response procedures.

17. Each impounding system serving an LNG storage tank (the concrete outer wall) shall be designed for 110 percent of the tank's capacity and the tank relief capacity sized accordingly if the annular space provides the 110 percent capacity. The effect of the perlite creating flow restriction through the relief valves and/or creating a source of static electricity must also be considered.

18. LNG tank carbon steel piping support plates and connections to piping

supports shall be designed to insure that corrosion protection is adequately provided and provisions for corrosion monitoring and maintenance of carbon steel attachments should be included in the design and maintenance procedures.

19. Horizontal and rotational movement indicators shall be provided on the primary containment tanks and instrumented for easy reading. Criteria shall be established for horizontal and rotational movement of the inner vessel for use during and after cool down.

20. In the event the temperature of any region of any storage tank outer containment vessel, including imbedded pipe supports, becomes less than the minimum specified operating temperature for the material, the Commission shall be notified on a timely basis and procedures for corrective action should be specified.

21. Redundant temperature detectors shall be installed within the annular space of each tank to detect a leak from the inner wall. Particular emphasis should be given to the lower portions of the annular space.

22. A foundation elevation survey of all LNG tanks shall be made on an annual basis.

23. Cameron shall provide metallurgical reasons supporting the use of 304 grade stainless steel over 304L grade stainless steel for high pressure piping. At the proposed location, the piping may be exposed to chloride attack from the environment and possible contact with brackish fire water.

24. Spill containment and spill control shall be designed to drain the spill away from piping and equipment and not channel the spill under the pipe.

25. Flammable gas and UV/IR hazard detectors shall be equipped with local instrument status indication as an additional safety feature.

26. All hazard detectors shall be installed with redundancy and/or fault detection and fault alarm monitoring in all potentially hazardous areas and/or enclosures.

27. Piping material proposed for the above-ground fire water system shall be designed to avoid the potential for corrosion in the piping system and especially from the introduction of brackish water. Safeguards shall also be

established to protect above ground fire water piping, including post indicator valves, from inadvertent damage.

28. Procedures shall be developed for providing the facility with fire water coverage during such times as the fire water system would be out of service, in particular for removing and flushing brackish water from the system.

29. Procedures shall be provided for handling off spec vaporized LNG. Information shall include the anticipated quantities of off spec vaporized product that can be handled and/or may be expected to occur during start up and shut down.

30. Procedures shall be developed for offsite contractor's responsibilities, restrictions, limitations and supervision of offsite personnel by Cameron's staff.

31. Operation and maintenance procedures and manuals, as well as emergency plans and safety procedure manuals, shall be filed with the Commission **prior to commencement of operations**.

32. The Commission's staff shall be notified of any proposed revisions to the security plan and physical security of the facility **prior to commissioning** the proposed facilities.

33. Progress on construction of the LNG terminal shall be reported in monthly reports submitted to the Commission. Details should include a summary of activities, problems encountered, and remedial actions taken. Problems of significant magnitude shall be reported to the Commission on a timely basis. Additional site inspections and technical reviews will be held by the Commission staff **prior to commencement** of operation.

34. The facility shall be subject to regular Commission staff technical reviews and site inspections on at least a biennial basis or more frequently as circumstances indicate. **Prior to each Commission staff technical review and site inspection**, Cameron shall be required to respond to a specific data request for information relating to possible design and operating conditions that may have been imposed by other agencies or organizations. Provision of 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 semi-annual report, would be required.

35. Semi-annual operational reports shall be filed with the Commission 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.), and 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 vibration and/or vibrations in associated cryogenic piping; storage tank settlement; significant equipment or instrumentation malfunctions or failures; non-scheduled 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 shall also be reported. Reports should 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)" shall also be included in the semi-annual operational reports. Such information would provide the Commission's staff with early notice of anticipated future construction/maintenance projects at the LNG facility.

36. Significant non-scheduled events, including safety-related incidents (i.e., LNG or natural gas releases, fires, explosions, mechanical failures, unusual overpressurization, major injuries) shall be reported to the Commission's staff **within 48 hours**. 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. property damage exceeding $10,000;

d. death or injury requiring 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 shut down of operation of a pipeline or an LNG facility that contains or processes gas or LNG;

l. safety-related incidents to LNG trucks or LNG vessels occurring at or in route to and from the LNG facility; or

m. the judgment of the LNG personnel 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, the Commission's staff will determine the need for a separate follow-up report or follow-up in the upcoming semi-annual operational report. All company follow-up reports should include investigation results and recommendations to minimize a reoccurrence of the incident.

37. Cameron shall provide a full deluge system to protect the storage tanks from thermal radiation from an adjacent tank fire. Other means such as increasing the spacing between adjacent tanks and/or other passive systems can also be considered.

38. Cameron shall provide detailed drawings of the transfer line impoundment systems, including dimensioned cross sections, for the review and approval of the Director of OEP **prior to construction**.

39. **Prior to construction**, Cameron shall provide evidence of its ability to exercise legal control over the activities that occur within the portions of the thermal exclusion zones that fall outside the site property line. Alternatively, Cameron may apply to the Department of Transportation for approval of a waiver from the regulations in 49 C.F.R. Part 193, which specify what alternative mitigation measures or plan Cameron 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.

40. **Prior to construction**, Cameron shall provide evidence of its ability to exercise legal control over the activities that occur within the portions of the vapor dispersion exclusion zones that fall outside the site property line. Alternatively, Cameron may apply to the Department of Transportation for approval of a waiver from the regulations in 49 C.F.R. Part 193, which specify what alternative mitigation measures or plan Cameron may provide that would afford an equal or greater level of flammable vapor-gas dispersion protection as the requirement for control over activities within the modeled exclusion zones.

41. **Prior to commencing service,** Cameron shall file with the Secretary and

the United States Coast Guard the plan for providing dedicated tug services.

Environmental conditions 42 through 51 apply to construction and operation of the 35.4-mile-long pipeline

42. Cameron shall employ at least two EIs. The EIs shall be:

    a. responsible for monitoring and ensuring compliance with all environmental mitigation measures required by this order, the Commission's Upland Erosion Control, Revegetation and Maintenance Plan (Plan) and Wetland and Waterbody Construction and Mitigation Procedures (Procedures), 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 documents;

    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 recommendations 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.

43. Cameron shall file updated status reports with the Secretary on a bi-weekly basis until all construction-related activities, including restoration, are complete. On request, these status reports will also be provided to other Federal and state agencies with permitting responsibilities. Status reports shall include:

    a. the current construction status of each spread, 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 EI(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 the measures taken to satisfy their concerns; and

f. copies of any correspondence received by Cameron from other Federal, state, or local permitting agencies concerning instances of noncompliance, and Cameron's response.

44. Cameron shall incorporate the Gulf Intracoastal Waterway Route Variation A (RV-A) and the Hickory Branch Route Variation into the proposed route.

45. Cameron **shall not begin** an open-cut crossing of any waterbody proposed to be crossed using HDD methods **until**:

a. Cameron files with the Secretary the specific reasons that the HDD method is not feasible or was not successful;

b. Cameron consults with the COE and the Louisiana Department of Environment Quality and files with the Secretary a detailed site-specific, open-cut crossing plan including scaled drawings identifying all areas that would be disturbed by constructing the open-cut crossing and mitigation measures that would minimize the extent and duration of disturbance on the waterbody and associated riparian habitat; and

c. Cameron has received written notification from the Director of OEP that an open-cut crossing may begin.

46. If a construction right-of-way width greater than 75 feet wide is required through any wetlands between milepost 1.0 and milepost 35.1, Cameron shall justify the modifications and shall file a site-specific construction plan

with the Secretary for review and written approval by the Director of OEP **prior to construction.** The plan shall include site-specific information on soil stability as a justification for the increased right-of-way width. Absent an approved site-specific construction plan, Cameron shall restrict the construction right-of-way through wetlands to 75 feet. This condition does not apply to wetlands between milepost 0.0 and milepost 0.7 where a variance to our 75-foot-wide restriction is approved. See table 4.2.4-2 of the EIS.

47. Cameron shall coordinate construction activities within the Brown Lake Hydrologic Restoration Project with the Natural Resource Conservation Service and coordinate construction activities within the Clear Marais Shore Protection Project with the Louisiana Department of Natural Resources and file results of coordination, including post-construction mitigation plans, with the Secretary **prior to pipeline construction.**

48. Cameron shall prepare a site-specific construction plan for the area between mileposts 28.2 - 29.2. This plan shall include:

    a. moving the HDD entry point and associated extra workspace for the Beckwith Creek crossing approximately 200 feet northeast off Temple-Inland's parcel;

    b. constructing the HDD entry point and associated extra workspace for the Hickory Branch crossing entirely on the parcel north of Temple-Inland's parcel;

    c. limiting the construction right-of-way between the above HDD extra workspaces to 75 feet in width; and

    d. actively revegetating the disturbed areas with native species, including replanting of native trees in the temporary workspaces.

    The site-specific plan shall be filed with the Secretary for review and approval by the Director of OEP **prior to pipeline construction**.

49. Cameron shall conduct surveys of suitable rookery habitat during the nesting season prior to initiation of pipeline construction. A report documenting the results of this survey shall be submitted to the Fish and Wildlife Service and the Louisiana Department of Wildlife and Fisheries for review and for further recommendations on timing restrictions. The

results of the consultations with the Fish and Wildlife Service and the Louisiana Department of Wildlife and Fisheries shall be filed with the Secretary for review and approval by the Director of OEP **prior to pipeline construction**. Cameron shall also include a description of wading bird rookeries and means to identify rookeries in environmental awareness training provided to contractors.

50. In the event that Cameron plans to use the open-cut method to construct the pipeline near the residences at mileposts 16.3 and 16.4, Cameron shall develop a site-specific screening plan(s) that includes specific measures to replace the trees/screening removed during construction. Cameron shall file the plan(s) with the Secretary for review and written approval by the Director of OEP **prior to construction**.

51. Cameron shall defer construction of the natural gas pipeline facilities and use of all staging, storage, and temporary work areas and new or to-be-improved access roads until:

    a. Cameron clarifies whether the correct route was surveyed for cultural resources between mileposts 29.0 and 29.5 and, if not, conducts a cultural resources survey;

    b. Cameron files with the Secretary outstanding cultural resources survey reports and any required treatment plan and the SHPO's comments on the reports and any plan; and

    c. the Director of OEP reviews all cultural resources survey reports and plans and notifies Cameron in writing that construction may proceed.

    All material filed with the Commission 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**.