

118 FERC ¶ 61,128
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Sudeen G. Kelly, Marc Spitzer,
Philip D. Moeller, and Jon Wellinghoff.

Gulf LNG Energy, LLC Docket No. CP06-12-000

Gulf LNG Pipeline, LLC Docket Nos. CP06-13-000
CP06-14-000

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

(Issued February 16, 2007)

1. On October 28, 2005, Gulf LNG Energy, LLC (Gulf LNG) filed, in Docket No. CP06-12-000, an application under section 3 of the Natural Gas Act (NGA) to site, construct and operate a liquefied natural gas (LNG) import terminal to be located in Jackson County, Mississippi. Concurrently, in Docket No. CP06-13-000, Gulf LNG Pipeline, LLC (GLP) filed an application under NGA section 7(c) to construct, own, and operate an approximately five mile-long pipeline from the proposed LNG terminal to interconnections with two interstate pipelines and a gas processing plant. The project, also known as the LNG Clean Energy Project, is designed with a peak deliverability of 1.5 Bcf per day (Bcf/d). In addition, in Docket No. CP06-14-000, GLP requests a blanket certificate under Subpart F of Part 157 of the Commission's regulations to perform certain routine construction activities and operations. GLP also requests a waiver of the open-access requirements of Part 284 of the Commission's regulations in order to permit the proposed pipeline to be operated on a proprietary basis. This order grants the requested authorizations.

I. Proposals

2. The LNG Clean Energy Project will receive, store, and vaporize foreign-source LNG, which will then be sent out through the terminal facilities to the proposed dedicated pipeline at a single unmetered point within the boundaries of the terminal for delivery to

interconnections with the interstate pipeline systems of Destin Pipeline Company (Destin) and Gulfstream Pipeline Company (Gulfstream), and the non-affiliated third party processing plant owned by BP. Gulf LNG and GLP are limited liability corporations formed solely to develop, construct, own, operate, and maintain the terminal and the pipeline, respectively.

A. Gulf LNG's Proposal

3. In Docket No. CP06-12-000, Gulf LNG seeks authorization under section 3(a) of the NGA to site, construct, and operate: (1) an LNG receiving facility including berthing accommodations for a single LNG vessel and unloading facilities and piping and appurtenances; (2) an LNG storage and vaporization facility (including two storage tanks capable of storing a total of 320,000 cubic meters (m³)), vaporization units and associated piping and control equipment; and (3) associated utilities, infrastructure, and support systems. The marine terminal will have the capability of unloading approximately 150 ships per year, based on an average throughput of 1.3 Bcf/d and an assumed carrier capacity of 150,000 m³.

4. The Gulf LNG project will be located in Jackson County, Mississippi, situated at the Bayou Casotte portion of the Port of Pascagoula, which is operated by the Jackson County Port Authority (JCPA). Gulf LNG states that the terminal will be designed and constructed in a manner that enables it to accept the full range of heating values, approximately 1,040-1,165 Btus after regasification, currently found for LNG on the world market. Because the terminal will not have the gas treatment facilities necessary to enable Gulf LNG to bring the entire potential range of LNG into compliance with the natural gas pipeline tariff specifications of the two interconnecting pipelines, Gulf LNG states it will rely on the BP-owned and operated gas treatment plant to perform this function. Specifically, Gulf LNG states that natural gas requiring treatment to meet pipeline quality and/or interchangeability standards will first be sent through the proposed GLP pipeline to the BP processing facility and such gas would subsequently be returned to the GLP pipeline for delivery to the Destin or Gulfstream pipelines.

5. Gulf LNG will utilize approximately 33.4 acres for the on-land portion of the terminal, plus 9.3 acres of land for permanent access roads and an additional 61.3 acres of tidal zone for the over-water portion of the terminal's marine facilities. Gulf LNG states that the necessary property rights will be obtained from the JCPA and Jackson County under a long-term sublease, pursuant to an option presently held by Gulf LNG. Gulf LNG explains that JCPA and Jackson County hold a long-term lease from the State of Mississippi on a parcel of land that includes all the property to be subleased by Gulf LNG and is zoned for industrial use. Additionally, Gulf LNG maintains that the only additional space affected by the construction of the terminal will be approximately

36 acres to be used as support areas and a contractor yard and these areas are expected to be located in previously disturbed locations already dedicated to industrial use.

B. GLP's Proposal

1. Proposed Facilities

6. In Docket No. CP06-13-000, GLP requests authority pursuant to section 7(c) to construct, own, and operate 5.02 miles of 36-inch diameter transmission pipeline, a pig launcher receiver facility, and three above ground, natural gas metering, delivery and interconnect sites: two for interconnection with the interstate pipelines of Destin and Gulfstream, and one for interconnection with the BP processing plant. The pipeline facilities are designed for a maximum allowable operating pressure (MAOP) of 1,440 psig and a peak deliverability of 1.5 Bcf/d of natural gas.

7. As proposed, the pipeline would receive natural gas at a single, unmetered point within the boundaries of the terminal. The GLP pipeline will transport the regasified LNG from the import terminal to the interconnection points with Destin and/or Gulfstream, or, if the gas needs processing in order to meet the gas quality specifications of the downstream pipelines, to the BP processing facility for subsequent redelivery through GLP to Destin and/or Gulfstream. GLP states that the pipeline has been designed to permit the transportation of non-interstate-pipeline quality gas in order to provide operational flexibility for the project with regard to the composition of LNG received.¹

8. During construction, the proposed pipeline will impact a total of 46.4 acres of land and share access roads, contractor yards and support areas with the terminal project. Once in operation, the pipeline will impact 24.9 acres for pipeline right of way and 1.2 acres for meter station sites, in addition to sharing the 9.3 acres occupied by the access roads shared with the terminal.

9. In Docket No. CP06-14-000, GLP requests a blanket certificate under Subpart F of Part 157 of the Commission's regulations to authorize it to perform routine activities in connection with construction, maintenance, and operation of the facilities proposed in its application.

¹ Gulf LNG states that the processing, in general, will entail stripping out ethane and/or propane from the gas stream to reduce the heat content to levels compatible with the requirements of the interconnecting interstate pipelines.

2. Request for Waiver of the Commission's Open-Access Requirements

10. GLP does not propose to make capacity available through an open-season process. All capacity will be contracted to third parties or an affiliate importing LNG through the affiliated terminal. As such, GLP requests that the Commission waive the open-access requirements in Part 284 of the Commission's regulations as well as related reporting and accounting requirements, to permit the pipeline to be operated on a proprietary and integrated basis with the terminal.

11. GLP asserts that operating the pipeline as an open-access facility would be impracticable and represent an unnecessary burden for GLP given the unique characteristics of the pipeline. In support, GLP states that the sole reason the pipeline is being constructed is to serve Gulf LNG's affiliated terminal and thus the sizing of the pipeline is closely matched to the needs of the terminal with no allowance for excess firm capacity. In addition, GLP asserts that even if it held an open season and up-sized the pipeline in response to requests for capacity, the intermingling of third party gas with gas from the terminal would likely result in the need to pass all the gas in the pipeline through the gas processing plant. According to GLP, this would restrict its ability to offer firm capacity to shippers without imposing a gas processing charge, which in turn would impact its ability to obtain firm transmission customers. Absent the ability to obtain firm transmission customers, GLP states it could not charge rates in an open-access environment that would justify constructing capacity in excess of that dedicated to the project. Further, GLP states that the pipeline is only 5.02 miles-long and no other existing or foreseeable facilities are capable of delivering natural gas to the receipt point located at the terminal. GLP maintains that even if such deliveries were physically possible, they would not be economical because transportation from that point would result in the shipper having to pay rates to both GLP and either Destin or Gulfstream. For these reasons, GLP states that no metering station is proposed for the upstream end of the pipeline and that the installation of a meter would serve no commercial purpose and create an unnecessary expense for the project and the ultimate end user. Similarly, GLP states that the pipeline's delivery points at Destin and Gulfstream will be unidirectional because there is no economic or physical reason for a third party to use the portion of the pipeline between the Gulfstream and Destin pipelines to transport gas between those pipelines - the distance between the two pipelines is only about 0.6 miles and Destin and Gulfstream already have an existing interconnection with each other adjacent to the proposed location of GLP's interconnection with Gulfstream.

12. While GLP asserts that, in the specific circumstances here, there are close similarities between its proposed pipeline and a non-regulated gathering line,² GLP states it is not requesting the Commission disclaim jurisdiction. Rather, it requests that the Commission recognize that light-handed regulation is warranted under these circumstances and that a waiver of open-access requirements is appropriate. GLP maintains that the costs and regulatory burden of imposing open access and rate regulation on GLP would dwarf the magnitude of any potential benefits to the public.

II. Notice, Interventions, Comments and Protest

13. Notice of the Gulf LNG and the GLP applications was published in the *Federal Register* on November 15, 2005 (70 Fed. Reg. 69326). A number of timely, unopposed interventions were filed.³ Timely, unopposed motions to intervene are granted by operation of Rule 214 of the Commission's Rules of Practice and Procedure.⁴

14. Total LNG USA, Inc. (Total LNG) filed a late motion to intervene. The Commission finds that granting the late-filed motion to intervene at this early date will not delay, disrupt, or otherwise prejudice this proceeding, or place an additional burden on existing parties. Therefore, for good cause shown, we will grant the late-filed motion to intervene.⁵

15. Southern Companies filed comments in support of the project. Southern Companies states that the proposed imports will provide additional supplies of natural gas to the Southeast and other parts of the country. In addition, Southern Companies states it supports the proposal for achieving gas interchangeability between regasified LNG and domestic supplies by utilizing the processing plant near the LNG terminal.

² Citing the primary function test first developed in *Farmland Industries, Inc.*, 23 FERC ¶ 61,063 (1983).

³ Motions to intervene were filed by the following parties: ExxonMobil Gas & Power Marketing Company, a Division of ExxonMobil Corporation, Southern Natural Gas Company, Florida Gas Transmission Company, BP Energy Company, Southern Company Services, Inc. (Southern Companies), and Chevron Global Gas, a Division of Chevron USA, Inc.

⁴ See 18 C.F.R. § 385.214(a)(3) (2006).

⁵ See 18 C.F.R. § 385.214(d) (2006).

III. Discussion

A. Gulf LNG's Proposed Terminal

16. Because the proposed LNG terminal facilities will be used to import gas from foreign countries, the construction and operation of the facilities and site of their location require approval by the Commission under section 3 of the NGA.⁶ 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.⁷ Section 3 provides that the Commission "shall issue such order on application. . ." if it finds that the proposal "will not be inconsistent with the public interest."

17. In recent years, the Commission has chosen to exercise a less intrusive degree of economic regulation for LNG import terminals, and has not required the applicant to offer open-access service or to maintain a tariff or rate schedules for its terminalling service.⁸ On August 8, 2005, the Energy Policy Act of 2005 (EPAct 2005) was signed into law.⁹ Section 311 of EPAct 2005 amends section 3 of the NGA regarding the Commission's authority over the siting, construction, expansion or operation of an LNG

⁶ The regulatory functions of section 3 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.*). In reference to regulating the imports or exports of natural gas, the Secretary subsequently delegated to the Commission the authority to approve or disapprove the construction and operation of particular facilities, the site at which facilities shall be located, and with respect to natural gas that involves the construction of new domestic facilities, the place of entry or exit for exports. The most recent delegation is in DOE Delegation Order No. 00-044.00A, effective May 16, 2006. Accordingly, applications for authority to import natural gas must be submitted to the Department of Energy. The Commission does not authorize importation of the commodity itself.

⁷ *Distrigas Corporation v. FPC*, 495 F.2d 1057, 1063-64 (D.C. Cir. 1974), *cert. denied*, 419 U.S. 834 (1974); *Dynegy LNG Production Terminal, L.P.*, 97 FERC ¶ 61,231 (2001).

⁸ *See Hackberry LNG Terminal, L.L.C.*, 101 FERC ¶ 61,294 (2002) (*Hackberry*), *order issuing certificates and granting reh'g*, 104 FERC ¶ 61,269 (2003).

⁹ Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594 (2005).

terminal.¹⁰ As pertinent here, section 311(c) of EPAct 2005 adds a new NGA section 3(e)(3) providing that, before January 1, 2015, the Commission shall not condition an order approving an application to site, construct, expand or operate an LNG terminal: (1) on a requirement that the LNG terminal offer service to customers other than the applicant, or any affiliate of the applicant securing the order; (2) any regulation of the rates, charges, terms or conditions of service of the LNG terminal; or (3) a requirement to file schedules or contracts related to the rates charges, terms or conditions of service of the LNG terminal. Our authorization here is consistent with new NGA section 3(e)(3).

18. 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.¹¹ The record in this case shows that the Gulf LNG terminal will provide such additional supplies of natural gas to consumers. Because the project is new, Gulf LNG has no existing customers who might be adversely affected by the costs or risk of recovery of the costs associated with the proposed LNG terminal project. The economic risks will be borne by Gulf LNG. Further, the environmental conditions set forth in this order will ensure that the adverse environmental impacts will be limited. Therefore, we find that, subject to the conditions imposed in this order, the Gulf LNG terminal is not inconsistent with the public interest.

B. GLP's Proposed Pipeline

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

1. The Certificate Policy Statement

20. On September 15, 1999, the Commission issued a Policy Statement¹² providing

¹⁰ Energy Policy Act of 2005, Pub. L. No. 109-58, § 311, 119 Stat. 594 (2005).

¹¹ *Hackberry LNG*, 101 FERC ¶ 61,294 at P 26 (2002).

¹² *Certification 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).

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.

21. 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.

22. The threshold requirement is that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. GLP is a new pipeline and has no existing customers. Thus, there will be no subsidization. Therefore, we find that GLP has satisfied the threshold requirement of the Policy Statement.

23. GLP also meets the remaining criteria for certification of new facilities set forth in the Policy Statement. There will be no adverse effect on existing services because GLP has no current customers. The new pipeline should also benefit interconnecting pipelines by providing new sources of gas for them to transport. Furthermore, no existing shippers or pipelines in the area have protested the filing. No landowner or community member objected to the proposed pipeline route, 83 percent of which is to be built along existing rights-of-way. For these reasons, we find that any adverse impacts on existing pipelines, landowners, and communities will be minimal.

24. The need for the GLP pipeline is supported by historical and projected trends in gas demand and supply. Various national and industry organizations that monitor energy consumption trends forecast growing demand for natural gas. Traditional sources of domestically produced gas, however, are in long-term decline. The data shows that forecasted domestic production will be unable to keep pace with demand and that the gap

will only widen in the future. It is expected that imports, including LNG, will be necessary to make up the supply gap. The LNG Clean Energy Project is being developed to provide access to new, competitively priced LNG supplies to meet this growing demand. Based on the benefits the project will provide to the market and the lack of any identified adverse effect on existing customers, other pipelines, landowners, or communities, we find, consistent with the Policy Statement and section 7 of the NGA, that the public convenience and necessity requires approval of GLP's proposal.

2. GLP's Request for Waiver of Part 284 of the Commission's Regulations

25. We now turn to GLP's requests to operate the pipeline on a proprietary basis and for waivers of various Commission regulations related to open-access service under Part 284 and other general reporting requirements. Our open-access regulations require prospective project sponsors to plan for and accommodate the needs of other parties that may desire to contract for service on the new pipeline. Here, however, GLP asserts that there will only be one use of the facility. GLP explains that the pipeline is designed so that its capacity matches that of the affiliated LNG terminal. GLP states that there is no current allowance for excess pipeline capacity. Further, it maintains there are no other existing or foreseeable facilities capable of delivering gas to the receipt point located at the terminal nor would it be economic to deliver gas to that point. Because the gas processing plant will be located near the terminus of the pipeline, third-party shippers that wish to transport gas through GLP would likely have to intermingle their gas with regasified LNG from the terminal and incur an additional gas processing charge. Furthermore, delivering gas to GLP would require a third party to pay both GLP and either Destin and Gulfstream, which run parallel to GLP for a large portion of its 5.02 mile length. Under these circumstances, it appears unlikely that shippers other than those transporting regasified LNG from the terminal will request service over the pipeline. The Commission has previously waived the requirement that a pipeline file a Part 284 tariff for a short pipeline where no other party was likely to request transportation service.¹³ Similarly, allowing the proposed proprietary use of the pipeline in these circumstances will relieve GLP from the administrative and regulatory burden associated with the requirement to file a Part 284 tariff for a short 5.02 mile pipeline where no other party is likely to request transportation service.

¹³ *Freeport-McMoRan Energy LLC*, 115 FERC ¶ 61,201 at P 22 (*Freeport-McMoRan*).

26. Although the Commission generally requires new pipelines to operate on an open-access basis, the Commission has explained that a flexible regulatory approach is appropriate in assessing proposals for the introduction of much-needed supplies of LNG into the interstate pipeline system.¹⁴ The Commission's goal is to provide incentives for additional energy infrastructure, while simultaneously ensuring competitive commodity prices and an open-access interstate pipeline grid. Under the particular circumstances of this proceeding, we believe that allowing GLP to operate its pipeline on a proprietary basis will not undermine the Commission's policy of encouraging competition in the pipeline industry. To the contrary, we believe that it will actually encourage competition by enabling significant additional volumes of natural gas from imported LNG to reach interstate pipelines and consumers in the United States.

27. In view of these considerations, we will not require GLP to file a Part 284 tariff at this time to comply with the Commission's open-access policies and regulations. However, consistent with our ruling in *Freeport-McMoRan*, we will condition the certificate issued herein to require that GLP apply for a Part 284 open-access blanket transportation certificate within 30 days of receiving a *bona fide* request for firm transportation service on its pipeline, if there is capacity available to provide the requested service.¹⁵

28. Since we grant GLP waiver of the open-access requirements of Part 284, there is no ongoing regulatory need to have cost-based financial statements prepared in accordance with the Commission's Uniform System of Account (USofA). Accordingly, we will grant GLP's request to waive accounting requirements, as prescribed in Part 201, Uniform System of Accounts Prescribed for Natural Gas Companies Subject to the Provisions of the Natural Gas Act. In addition, we will grant GLP's request to waive reporting requirements, as prescribed in section 260.2, FERC Form No. 2-A, Annual Report for Nonmajor Natural Gas Companies (Form 2-A), and section 260.300, FERC Form No. 3-Q, Quarterly Financial Report of Electric Utilities, Licensees, and Natural Gas Companies, but note that such waivers do not extend to the FERC's annual charge assessment (ACA). Therefore, GLP is required to file page 520 of Form 2-A, along with an officer certification of the filing, reporting the gas volume information which is the basis for imposing an ACA.¹⁶ We will also grant waiver of Part 250, Approved Forms. Finally, GLP is required to follow any business practices (e.g., entering into Operational

¹⁴ *Hackberry*, 101 FERC ¶ 61,294 at P 23.

¹⁵ *Freeport-McMoRan*, 115 FERC ¶ 61,201 at P 24.

¹⁶ *Id.*

Balancing Agreements) and any applicable North American Energy Standards Board (NAESB) timelines that are required to enable interconnecting pipelines to comply with the NAESB standards.

29. Further, in the event that GLP is required to apply for a Part 284 open-access blanket transportation certificate, the accounting and reporting waivers shall be rescinded and GLP will be required to comply with the Commission's accounting and reporting regulations in Part 201 and sections 260.2 and 260.300. Finally, we will require that GLP maintain records to identify separately the original cost and related depreciation on the facilities consistent with the USofA, since any future calculation of rates for open-access transportation service would require this cost-of-service accounting information.¹⁷

3. Issuance of a Part 157, Subpart F, Blanket Certificate

30. In addition to authority to construct and operate the GLP pipeline and operate it on a proprietary basis, GLP seeks a blanket certificate under Part 157, Subpart F. Pursuant to this blanket certificate, pipelines may construct and operate certain facilities without filing a case-specific application for a certificate under NGA section 7(c). A pipeline holding a blanket construction certificate may construct and operate certain facilities without notifying the Commission in advance or with prior notification, depending on the cost of the facilities. GLP will become an interstate pipeline once it accepts the certificate to construct and operate the facilities issued in this order and it has stated in its application that it will comply with the provisions of Part 157, Subpart F. Therefore, we will issue a blanket construction certificate to GLP.

C. Environmental Analysis

1. Coordination and Public Involvement

31. On December 16, 2004, the Commission initiated its pre-filing process for Gulf LNG's and GLP's (collectively, Gulf Energy) proposals, and on March 3, 2005, issued a "Notice of Environmental Review and Scoping for the proposed LNG Clean Energy Project and Request for Comments". On April 20, 2005, the Commission conducted a public scoping meeting in Pascagoula, Mississippi to provide an opportunity for the general public to learn more about the proposed project and about how to participate in our analysis by commenting on issues to be included in the draft

¹⁷ *Id.* at P 26.

environmental impact statement (EIS).¹⁸ Nine people commented at the meeting. Comments covered a wide variety of topics including reliability and safety, alternatives, land use, recreation, and socioeconomics. The issues raised by these comments were addressed in the draft EIS.

32. The Commission issued its draft EIS for the LNG Clean Energy Project on May 19, 2006, and the final EIS on November 24, 2006. The Environmental Protection Agency (EPA) issued its Notice of Availability of the final EIS on December 1, 2006. The draft and final EISs were mailed to federal, state, and local agencies, elected officials, Native American tribes, newspapers, public libraries, intervenors to the Commission proceeding, and other interested parties (*i.e.*, landowners, other individuals, and environmental groups who provided scoping comments). Approximately 331 copies of the final EIS were mailed to agencies, libraries, groups, and individuals provided in Appendix A of the EIS. The U.S. Army Corps of Engineers (COE); Coast Guard; U.S. Department of the Interior, Fish and Wildlife Service (FWS); U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS); EPA; Mississippi Department of Environmental Quality (MDEQ); and Mississippi Department of Marine Resources (MDMR) participated as cooperating agencies for the development of the EIS.

33. We received five written comments in response to the draft EIS. The Commission also conducted a public meeting to address the draft EIS in Pascagoula, Mississippi on June 22, 2005. A total of four people provided comments at this meeting. Written comments on the draft EIS were received from the U.S. Department of Interior; (DOI) the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS); the EPA; Paula Vassey; and Gulf Energy. The most frequently received comments on the project relate to LNG safety, alternatives, ship traffic, fishing/shrimping, Gulf sturgeon critical habitat, wetlands, and dredged material placement. These comments are addressed in the final EIS. We also received comment letters from three elected officials, all of whom support the project.

34. The final EIS addresses the issues and concerns raised in response to the comment letters received on the draft EIS, and also addresses geology; soils and sediments; water resources; wetlands and vegetation; wildlife and aquatic resources; threatened,

¹⁸ As indicated in the notice, the scoping meeting also provided an opportunity for the public to comment on the Casotte Landing LNG Project, a nearby project similar to the LNG Clean Energy Project, proposed by Bayou Casotte Energy LLC. The Casotte Landing LNG Project is being authorized under section 3 of the NGA in an order also issued today in Docket No. CP05-420-000.

endangered and other special statutes species; land use, recreation, and visual resources; socioeconomics; transportation and traffic; cultural resources; air quality and noise; reliability and safety; cumulative impacts, and alternatives. On January 3, 2007, EPA filed comments on the final EIS.

35. We have consulted with the U.S. Department of Defense (DOD) as required by the Energy Policy Act of 2005 and section 3 of the NGA to determine if any training or activities on any military installations would be affected by the project. No comments or concerns were received from any branch of the military or any military installation in reply to the staff's scoping notice issued on March 3, 2005. Further, no comments were received from any DOD branch in response to the draft EIS.

36. In addition, in letters dated January 30, 2006, to the Army, Navy, and Air Force at the Pentagon, our staff requested any information on effects on military installations. Since no effects have been identified, we conclude that there is no effect on military installations from this project. And therefore no concurrence from the Secretary of Defense is required.¹⁹

37. Based on information provided by Gulf Energy 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 concluded that, with the use of Gulf Energy's proposed mitigation and adoption of the final EIS's recommended mitigation measures, construction and operation of the proposed facilities would have limited adverse environmental impact.

2. Wetlands, Habitat, Dredging, Special Species, Essential Fish Habitat, and Coastal Zone Consistency Review

Wetlands

38. Construction of the LNG Clean Energy Project would affect approximately 20.0 acres of wetlands. Construction of the LNG terminal facilities would result in temporary impacts on 5.8 acres of wetlands. Permanent wetland impacts associated with the LNG terminal facilities would include the permanent loss of 4.9 acres of emergent wetlands (coastal brackish marsh). Construction of the pipeline facilities would temporarily affect 14.1 acres of wetlands. Operation of the proposed pipeline facilities would result in the permanent conversion of 2.6 acres of forested wetlands to emergent wetlands within the permanently maintained right-of-way.

¹⁹ See NGA section 3(f)(3).

39. In general, wetland impacts would be minimized by avoidance, mitigation of impacts, and compensation in accordance with federal, state, and local regulations. Gulf Energy would mitigate construction-related impacts by implementing our Wetland and Waterbody Construction and Mitigation Procedures and by complying with the MDMR/COE's section 404 and MDEQ's section 401 permit conditions. Gulf Energy has developed a draft Mitigation Plan in consultation with the COE; MDMR; NMFS; and other applicable agencies. The plan includes details on Gulf Energy's proposal to convert an area of existing upland to coastal brackish marsh to compensate for permanent wetland impacts associated with the development of the LNG terminal and access road. The Mitigation Plan also identifies criteria that would be used to determine the success of the restoration effort. Further, the plan would include mitigation measures for potential impacts to Essential Fish Habitat (EFH) and EFH species, and mitigation for potential impacts to species protected under the Endangered Species Act and the Marine Mammal Protection Act.

40. Gulf Energy's Mitigation Plan for wetland impacts is not yet finalized. Therefore we are requiring that Gulf Energy shall continue to consult with the COE, MDMR, NMFS, and other applicable agencies to finalize its Mitigation Plan. We will require Gulf Energy to file the final Mitigation Plan with the Secretary before the start of construction.

41. The EPA's January 3, 2007 comments acknowledge the inclusion of a draft Mitigation Plan in the final EIS and the statement, "in the event that establishment of the marsh is unsuccessful, appropriate action will be taken to correct the deficiencies" in section 5.4.5.1 (Monitoring Design) of this Plan. However, the EPA recommends that "the project's contingency plan reflect an approach that is sensitive to restoration needs that may require revision as conditions change." EPA also recommends that "the contingency plan contain specific information describing how any restoration deficiencies that might arise would be effectively addressed." Furthermore, the EPA recommends that the Commission and Gulf LNG "prepare a sufficiently detailed contingency plan in the event the wetland restoration actions are unsuccessful", and suggests that the Commission/Gulf LNG continue consultations with the COE, EPA, MDMR, NMFS, (and other applicable agencies) to provide more plan details prior to finalization of the section 404 permit process.

42. Section VI.C.4 of our staff's Wetland and Waterbody Construction and Mitigation Procedures requires Gulf LNG to consult with the appropriate land management or state agency to develop a project-specific wetland restoration plan. This section also requires that the restoration plan should include measures for re-establishing herbaceous and/or woody species, and monitoring of the success of revegetation efforts. Gulf LNG's Mitigation Plan is still being developed and we believe that Gulf LNG should continue to

work with the above-mentioned agencies through the section 404 permit process to further refine its draft Mitigation Plan with provisions that address and correct restoration actions that may be unsuccessful.

Dredging

43. Construction of the LNG terminal would require the dredging of about 2.96 million cubic yards of sediment to accommodate the marine facilities associated with the proposed project. Gulf Energy proposes to place the dredged material associated with construction in the EPA-designated Ocean Dredged Material Disposal Site (ODMDS).

44. Gulf Energy also anticipates that the ship berth and maneuvering area would require periodic maintenance dredging every 3 years. The ship berth and maneuvering area would be owned by the JCPA after it is constructed and the JCPA would be responsible for the maintenance dredging. The Bayou Casotte Dredged Material Management Site is the proposed placement area for dredged material generated during maintenance dredging.

45. Further, Gulf Energy has developed a draft Mitigation Plan and a Monitoring Plan in consultation with the COE, MDMR, NMFS, and other applicable agencies to address habitat alteration associated with dredging and dredge material placement activities as well as other impacts on aquatic species. Gulf Energy proposes to conduct a Gulf sturgeon habitat assessment survey as part of its Monitoring Plan.

46. Gulf Energy's proposed use of the ODMDS for dredge material requires a section 103 evaluation under the Marine Protection, Research and Sanctuaries Act (MPRSA) by the COE and concurrence from the EPA. The EPA Region 4 states that in a MPRSA section 103 Evaluation issued on September 15, 2006, the COE determined that material from the Gulf LNG Clean Energy Project is suitable for ocean disposal. The EPA Region 4 has completed an independent review of COE's section 103 Evaluation Report and supporting document (Chemistry, Bioassay And Bioaccumulation Analyses Conducted On Sediments Collected From Southeast Of Bayou Casotte, Mississippi- LNG Clean Energy Project, August 2005), and the supplemental information provided to EPA on November 3, 2006. The EPA has also completed an independent evaluation of the suitability of dredged material for disposal at the Pascagoula ODMDS. EPA concurs with the COE's determination that the proposed new dredged material will comply with the criteria set forth in 40 C.F.R. Part 227, and may be disposed at the Pascagoula ODMDS.

Endangered or threatened species

47. Fifteen federally listed endangered or threatened species were identified as potentially occurring in the project area. The fifteen species include six mammals (sperm whale, blue whale, sei whale, fin whale, humpback whale, and North Atlantic right whale), two birds (bald eagle and brown pelican), five reptiles (hawksbill sea turtle, green sea turtle, Kemp's ridley sea turtle, leatherback sea turtle, and loggerhead sea turtle), and two fish (smalltooth sawfish and Gulf sturgeon). The portion of the Mississippi Sound affected by the project has also been designated as critical habitat for the Gulf sturgeon. In addition to those species protected under the Endangered Species Act, there are a number of other special status species that may occur in the project area. These include those identified by the Mississippi Natural Heritage Program, marine mammals, and migratory birds.

48. Our staff issued a draft Biological Assessment on the project to the NMFS on March 27, 2006. Formal consultation and preparation of a biological opinion (BO) will be required on this project pursuant to section 7 of the Endangered Species Act (ESA). On September 7, 2006, the NMFS indicated that the initiation package was determined to be complete, and indicated it has received sufficient information to initiate interagency consultation on species listed and critical habitat designated under the ESA. NMFS' issuance of the BO on the project is pending.

49. By letter dated April 28, 2006, the FWS concurred with our determination that the project is not likely to adversely affect the brown pelican, the bald eagle, and the five species of sea turtles under the FWS' jurisdiction. Because consultations with the NMFS have not yet been completed, we are requiring that Gulf Energy not begin construction until these consultations are complete and Gulf Energy receives written notification from the Director of the Office of Energy Projects (OEP) that construction and/or implementation of conservation measures may begin. Additionally, we are requiring that, if construction does not begin within one year of issuance of Commission authorization, Gulf Energy consult with the appropriate offices of the FWS and NMFS to update the species list and to verify that previous consultations and determinations are still current.

Essential Fish Habitat Consultation

50. As required by the Magnuson-Stevens Fishery Conservation and Management Act, we have consulted with the NMFS- Habitat Conservation Division regarding essential fish habitat (EFH) that would be affected by construction and operation of the proposed LNG Clean Energy Project. As part of this consultation, we submitted to NMFS an EFH assessment that included descriptions of the proposed project, EFH, federally managed species, impacts to EFH, and proposed mitigation measures. Specifically, the EFH assessment focused on, but was not limited to, EFH associated with

the federally managed brown shrimp, white shrimp, red drum, Spanish mackerel, scalloped hammerhead shark, blacktip shark, tiger shark, bonnethead shark, and Atlantic sharpnose shark.

51. On January 4, 2007, the Commission Staff informed NMFS that we have concluded, based on the information presented, analyses performed, proposed mitigation measures described in the EFH assessment as well as in our EIS, and our previous consultations with this office, that impacts on EFH associated with construction and operation of the proposed project would not have a substantial adverse effect on managed fisheries in the area. On January 22, 2007, the NMFS submitted a letter with the Commission stating that it does not disagree with our determination and that no further coordination is required unless the project design or operation plans change and adverse impacts to EFH which have not been evaluated would be expected to occur.

Coastal Zone Consistency

52. The LNG Clean Energy Project, including the LNG marine traffic in the waterways, is subject to a federal Coastal Zone Consistency Review because it would: 1) involve activities within the coastal zone of Mississippi; and 2) require several federal permits and approvals. Mississippi has an approved Coastal Management Program (CMP) administered by the MDMR. The coastal area in Mississippi is defined as Hancock, Harrison, and Jackson Counties. Because all of the facilities associated with the LNG Clean Energy Project would be located within Jackson County, Gulf Energy is responsible for documenting that the project is consistent with the Mississippi CMP and obtaining concurrence of consistency from the MDMR. On December 11, 2006, Gulf Energy filed a copy of MDMR's letter dated August 23, 2006, stating that the MDMR has coordinated a review of the project through the Coastal Program review procedures and determined that the project is consistent with the Mississippi CMP provided that Gulf Energy complies with certain conditions noted in its letter.

53. The final EIS's recommended condition No. 25 that requires Gulf Energy to file documentation of concurrence from the MDMR that the project is consistent with the Mississippi CMP is no longer needed. Therefore, we have omitted environmental condition No. 25 of the final EIS and renumbered the environmental conditions in this order.

3. Air Emissions

54. On September 8, 2006, our staff requested a cumulative impact modeling analysis of the LNG Clean Energy Project and Bayou Casotte Energy LLC's (Bayou Casotte) Casotte Landing LNG Project. It was recommended that the two companies share emissions data and work together to prepare a joint modeling analysis to show the

potential impacts on air quality of the existing emissions sources and all reasonably foreseeable future sources (the LNG Clean Energy Project, the Casotte Landing LNG Project, and Pascagoula Refinery Expansion). The two companies met, shared data, and agreed upon a model and all modeling parameters.

55. Bayou Casotte filed their results of the joint modeling effort on November 8, 2006, in Docket No. CP05-420-000. At the time the final EIS was issued for the LNG Clean Energy Project, Gulf Energy had not filed its results. Bayou Casotte's results, which were available at the time, were reviewed and found acceptable to meet the requirements of the National Environmental Policy Act (NEPA) with respect to the Gulf Energy project. Therefore, they were included in the LNG Clean Energy Project final EIS.

56. On November 29, 2006, Gulf Energy filed a supplemental data response to our staff's September 8, 2006 data request. Gulf Energy stated that it had met with representatives of Bayou Casotte and its environmental consultant ENSR and had determined that Bayou Casotte's cumulative modeling approach and inputs were reasonable and supported the overall conclusions reached by Gulf Energy through its parallel modeling effort. Gulf Energy adopted Bayou Casotte's November 8, 2006 response for the purpose of completing Gulf Energy's response to its data request. The results, reviewed and verified by Commission staff, indicate that none of the combined impacts would exceed the National Ambient Air Quality Standards (NAAQS). Also, the impacts from the combined projects would not significantly impact the existing air quality at the Breton National Wildlife Refuge (a federal Class I area).

57. On January 3, 2007, the EPA, Region 4 provided comments on the final EIS continuing to address concerns on air quality impacts. EPA states: (1) that the air dispersion modeling performed did not follow EPA guidance and no justification for using other modeling procedures was provided in the final EIS; (2) that the final EIS did not address pollutants that exceeded thresholds with a cumulative modeling analysis; (3) the cumulative analysis provided was lacking and should have included the existing sources and the Chevron Refinery Expansion in the air dispersion modeling analysis; and (4) a cumulative assessment of the Class I areas is necessary.

58. In a letter dated February 2, 2007, the Commission staff responded to EPA regarding its comment letter on air quality impacts. We have summarized below our response to EPA.

59. The final EIS explained that the proposed project was not subject to a Prevention of Significant Deterioration (PSD) analysis and therefore was not required to follow EPA guidance for modeling or PSD threshold values. However, modeling was performed based on Commission staff's guidance to assess impacts under NEPA. EPA's initial

claim of not performing a cumulative modeling analysis of pollutants which exceeded thresholds was incorrect, as all pollutants which exceeded initial thresholds were then cumulatively modeled and the analysis was provided in the cumulative impacts section of the final EIS. The letter clarifies that the Chevron Refinery Expansion was included in the modeling analysis through a scaling process that was explained in the final EIS, and existing sources were accounted for through modeling by adding the modeled results to the ambient monitored concentration. The letter also states that two Class I air modeling analyses were performed separately by the MDEQ and the Commission. Both analyses came to the conclusion that impacts were below the thresholds warranting a cumulative Class I analysis. However, a cumulative Class I analysis was performed nonetheless and is available as part of the public record, and reference was made in the final EIS to the results of this analysis.

60. In its January 3, 2007 comment letter, EPA also recommended that the Commission address the Ozone 8-hour ambient measurement which is above the NAAQS. The Commission staff acknowledges that the measured 8-hour Ozone level is above the NAAQS. However, EPA has not designated this area as non-attainment, and therefore it was not evaluated as one. Since the project area is EPA designated as attainment/unclassifiable, no additional analysis is required than already provided in the final EIS.

61. Finally, in its comments concerning air emissions, EPA comments that annual construction emissions were greater than even the worst case operating emissions scenario and therefore it has concerns that construction emissions were not adequately addressed. EPA's comment is incorrect. Although the operating emissions that were modeled were narrowed for mobile sources, the annual operating emissions for each of the pollutants were available as part of the public record for this docket and are as follows: NO_x – 549.1 tons per year (tpy), Carbon Monoxide (CO) – 262.6 tpy, Sulfur Oxides (SO_x) – 274.8 tpy, and VOCs – 48.37 tpy. The highest annual construction emissions would occur in 2008 and are as follows: NO_x – 361.4, CO – 208.3, SO_x – 46.8, and VOCs – 29.2. As can be seen, the highest annual construction emissions would be below the worst case modeled operating emissions, and therefore our justification in the final EIS stands and we do not believe there would be a significant impact from construction emissions with respect to NO_x, CO, SO_x, and VOCs.

4. Commission Safety Review and Coast Guard Coordination

62. The final EIS evaluated the safety of both the proposed LNG Clean Energy Project and the related LNG vessel transit through the Pascagoula Bar, Horn Island Pass, Lower Pascagoula, and Bayou Casotte Channels. 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. Requirements for safety of the terminal are in the Coast Guard regulations in 33 C.F.R. Part 127 and for maintaining security are in 33 C.F.R. Part 105. The required site specific safety and security plan would be subject to the review and approval of the Captain of the Port.

63. 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 final EIS. That review noted several areas of concern, and as a result, the final EIS recommends 34 environmental conditions that apply to the terminal design and construction. Information pertaining to these requirements is to be filed for review and approval by the Director of OEP prior to initial site preparation, prior to construction of final design, prior to commissioning, or prior to commencement of service as indicated by each specific recommendation. The final EIS 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.

64. In addition, the final EIS discussed the Department of Energy's (DOE) study by Sandia National Laboratories entitled, *Guidance on Risk Analysis and Safety Implications of a Large Liquefied Natural Gas (LNG) Spill Over Water (Sandia Report)*. 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* breach sizes, thermal radiation and flammable vapor hazard distances were calculated in the final EIS for an accident or an attack on an LNG vessel. For the nominal intentional breach scenarios (5- to 7-square-meter holes in an LNG cargo tank), the estimated distances ranged from: 4,182 to 4,652 feet for a thermal radiation of 1,600 Btu/ ft²-hr, the level which is hazardous for persons located outdoors and unprotected; 3,232 to 3,591 feet for 3,000 Btu/ ft²-hr, an acceptable level for wooden structures; and 1,934 to 2,143 feet for 10,000 Btu/ ft²-hr, a level sufficient to damage process equipment, for these size holes respectively.

65. 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 is unlikely to affect the public. As a result, the final EIS determined that the risk to the public from accidental causes is negligible.

66. 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. If the Coast Guard issues a Letter of Recommendation (LOR) finding the waterway suitable for LNG marine traffic, the operational restrictions that would be imposed by the Pascagoula Pilots on LNG vessel movements through this area, as well as the requirements that the Coast Guard would impose, would minimize the possibility of a hazardous event occurring along the vessel transit area. 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.

67. On June 14, 2005, the Coast Guard issued a Navigation and Vessel Inspection Circular – Guidance on Assessing the Suitability of a Waterway for Liquefied Natural Gas (LNG) Marine Traffic (NVIC). The purpose of this NVIC is to provide Coast Guard Captains of the Port (COTP)/Federal Maritime Security Coordinators (FMSC), members of the LNG industry, and port stakeholders with guidance on assessing the suitability and security of a waterway for LNG marine traffic. It provides specific guidance on the timing and scope of the waterway suitability assessment (WSA), which will address both safety and security of the port, the facility, and the vessels transporting the LNG. Preparation of this guidance was referenced in the Coast Guard’s March 18, 2005 Report to Congress on Liquefied Natural Gas Terminals.

68. On several LNG import terminal proposals, a number of organizations and individuals commented on the need to consider emergency response procedures. Subsequently, section 3A(e) of the NGA, added by section 311 of the Energy Policy Act of 2005, stipulated that in any order authorizing an LNG terminal, the Commission shall require the LNG terminal operator to develop an Emergency Response Plan in consultation with the Coast Guard and state and local agencies. The Commission must approve the Emergency Response Plan prior to any final approval to begin construction. The final EIS recommended that Gulf LNG develop an Emergency Response Plan (including evacuation) and coordinate procedures with the Coast Guard, state, county, and local emergency planning groups; fire departments; state and local law enforcement; and appropriate federal agencies. We agree with that recommendation.

69. Further, the Commission has also received comments on other LNG terminal proposals expressing concern that the local community would have to bear some of the cost of ensuring the security and emergency management of the LNG facility and the LNG vessels while in transit and unloading at the berth. In addition, section 3A(e)

specifies that the Emergency Response Plan that contains a description of any direct cost reimbursements the applicant agrees to provide to any state and local agencies with responsibility for security and safety at the LNG terminal and near vessels that serve the facility. The final EIS recommended that Gulf LNG's Emergency Response Plan include a Cost-Sharing Plan identifying the mechanisms for funding all project-specific security/emergency management costs that would be imposed on state and local agencies. We concur with this recommendation.

70. In accordance with 33 C.F.R. § 127.007, Gulf LNG submitted a Letter of Intent (LOI) to the Coast Guard on December 3, 2004. On November 17, 2005, the Coast Guard issued a notice in the *Federal Register*, requesting comments pertaining specifically to the maritime safety and security aspects of the proposed LNG facility. In preparation for issuance of an LOR and the completion of certain other regulatory mandates, the comments received were incorporated into a formalized risk assessment process to assess the safety and security aspects of the facility, adjacent poor areas, and navigable waterways. The Coast Guard held a public meeting on December 7, 2005, pursuant to the notice. The Coast Guard's comment period ended on December 14, 2005.

71. On December 29, 2005, Gulf LNG submitted a WSA for the proposed project to the COTP for Coast Guard Sector Mobile. The Coast Guard, with input from the Pascagoula Area Maritime Security Committee (AMSC), has completed an initial review of Gulf LNG's WSA in accordance with the guidance in (NVIC 05-05). The WSA review focused on the navigation safety and maritime security risks posed by LNG marine traffic, and the measures needed to responsibly manage these security risks.

72. On March 7 and September 5, 2006, the Coast Guard sent WSR letters to the Commission, based on the above WSA and AMSC review, providing input on the capability of the port community to implement the risk management measures necessary to responsibly manage the risks of LNG marine traffic in the port. As described in the final EIS, the Coast Guard made a preliminary determination that the Pascagoula Bar, Horn Island Pass, Lower Pascagoula, and Bayou Casotte Channels may be suitable for the LNG marine traffic associated with this project. The Coast Guard also stated that there is sufficient capability within the port community to responsibly manage the safety and security risks of this project.

73. If the Coast Guard issues an LOR finding the waterway suitable for LNG marine traffic with the conditions, the arrival, transit, cargo transfer, and departure of LNG ships in the waterway would be required to adhere to the procedures of an LNG Vessel Transit Management Plan to be developed by the Coast Guard Sector Mobile. In addition, Gulf LNG would develop Operations and Emergency Manuals in consultation with the Coast Guard. These procedures would be developed to ensure the safety and security of all operations associated with LNG ship transit and unloading. The LNG Vessel Transit

Management Plan would contain specific requirements for the LNG ship, pre-arrival notification, transit through shipping channels, the waterfront facility, cargo transfer operations, Coast Guard inspection and monitoring activities, and emergency operations. The Coast Guard Sector Mobile would monitor each LNG ship in accordance with the LNG Vessel Transit Management Plan.

74. Some of the anticipated key provisions of the LNG Vessel Transit Management Plan would be the establishment of a moving safety and/or security zone for all inbound and moored LNG ships, and the use of tugs to assist in the channel and to maneuver the ship into the berth. Additional provisions may be necessary given changing circumstances.

75. We recognize that the LNG Vessel Transit Management Plan would be a dynamic document that would be prepared well before import operations would commence, and that the port's overall security picture may change over that time period. New port activities may commence, infrastructure may be added, or population density may change. Improvements in technology to detect, deter and defend against intentional acts may also develop. The final EIS recommends that Gulf LNG should annually review its WSA relating to LNG marine traffic for the project; update the assessment to reflect changing conditions which may impact the suitability of the waterway for LNG marine traffic; provide the updated assessment to the cognizant COTP/FMSC for review and validation and, if appropriate, further action by the COTP/FMSC relating to LNG marine traffic; and provide a copy to the Commission staff. We concur with this recommendation.

76. In its January 3, 2007 comments, EPA stated that according to information in the final EIS, a spill resulting from a 1-meter hole would generate a vapor cloud extending 9,776 feet to the Lower Flammable Limit, and the nearest residence is 1.7 miles from the LNG Clean Energy Project terminal site. The proximity of the closest residences and businesses to a potential vapor cloud resulted from an LNG cargo spill warrants additional analysis and discussion to further justify the final EIS's conclusion that the risk to the public is not significant. Therefore, EPA recommends that the Commission staff provide additional analyses regarding thermal radiation and flammable vapor hazard scenarios to more clearly demonstrate the conclusion of insignificant risk.

77. Section 4.13.4 of the final EIS finds that thermal radiation and vapor dispersion exclusion zones associated with an onshore LNG spill at the Gulf LNG terminal would either remain within the facility property line, or extend over water, and over lands under the control of Gulf LNG and the U.S. Army Corps of Engineers. Subsequently, this would meet the requirement of 49 C.F.R. §§ 193.2057 and 2059. As discussed in the following paragraphs, the Commission's staff has thoroughly considered and analyzed

the matters raised by EPA regarding thermal radiation and flammable vapor hazard scenarios.

78. The Commission staff's conclusion that the risk to the public from accidental causes should be considered negligible is based on several factors. As discussed in section 4.13.5.4 "Hazards," the December 2004 *Sandia Report's* analysis of accidental events found that groundings and low speed collisions could result in minor ship damage but not a cargo spill; while high speed collisions could cause a 0.5 to 1.5m² cargo tank breach. It is anticipated that inbound LNG ships would be met by tugs in the vicinity of the junction of the Bayou Casotte and Upper Pascagoula Channels, made up with lines and utilized to assist in slowing, turning and berthing the ship. Ship speeds within the channels would range between 3 and 10 knots. The operational controls imposed by the Coast Guard and local pilots and the use of tugs to assist the LNG ship would significantly reduce the possibility of a cargo containment failure and subsequent LNG spill from an accidental collision, grounding, or allision. As stated previously, the Coast Guard made a preliminary decision that the Pascagoula Bar, Horn Island Pass, Lower Pascagoula, and Bayou Casotte Channels may be suitable for the LNG marine traffic associated with this project. The Coast Guard also stated that there is sufficient capability within the port community to responsibly manage the safety and security risks of this project.

79. The Commission staff performed vapor dispersion calculations based on a 1-meter diameter hole cargo tank breach from an accident. Results of this analysis showed that the flammable vapor would extend to the maximum distance only if an event to create the hole in the LNG vessel by penetrating the outer hull, the inner hull, and cargo containment occurred without ignition. Therefore, a flammable vapor cloud would not likely occur. It is also unlikely that a flammable vapor cloud could achieve its maximum distance over land surfaces without encountering an ignition source. This is not to imply that flammable vapor would not extend to the maximum distance, but it would be far more credible that the event creating a hole would also result in a number of ignition sources which would lead to an LNG pool fire and subsequent thermal radiation hazards. The Commission staff also calculated the thermal radiation distances for several holes ranging in diameter from 1 meter to 3.9 meters, based on the results from the *Sandia Report*. We estimated distances to range from 2,164 to 5,250 feet for a thermal radiation level of 1,600 Btu/ft²-hr. There would be no residences within the 1,600 Btu/ft²-hr transient hazard area.

80. With respect to EPA's comments regarding further analyses on thermal radiation and flammable vapor hazard resulted from an LNG cargo tank breach, an extensive discussion over the methodologies, assumptions and consequences for calculating thermal radiation and vapor dispersion distances for an LNG cargo tank spill was

provided in section 4.13.5.4 “Hazards” of the final EIS. The marine hazard analyses were based on consequence methodology described in the ABSG Consulting Inc. study, titled *Consequence Assessment Methods for Incidents Involving Releases from Liquefied Natural Gas Carriers*. It should be noted that the hole sizes identified in the *Sandia Report* and the “worst case” intentional breach scenarios should not be misconstrued as defining an exclusionary zone. Rather, the average most probable “worst case” scenarios provide guidance in developing the operating restrictions for LNG vessel movements in the Port of Pascagoula Channels as well as in establishing potential impact areas for emergency response and evacuation planning. We have included as a condition to this Order that Gulf LNG shall develop an Emergency Response Plan (including evacuation) and coordinate procedures with the Coast Guard, state, county, and local government agencies. Gulf LNG would be required to submit the Emergency Response Plan for approval prior to initial site preparation. We believe that although the risks associated with the LNG vessel transit cannot be entirely eliminated, they can be managed.

5. Environmental Justice

81. While acknowledging the additional data provided in the final EIS regarding the demographics and economic status of the City of Pascagoula, Jackson County, and the State of Mississippi, EPA is nevertheless concerned that the final EIS does not fully address whether the proposed project would result in disproportionately high and adverse human health or environmental effects on minority populations and low-income populations. The EPA recommends that the Commission staff analyze how the addition of the proposed project would impact the current pollution load for low-income and minority populations in the project area. The EPA also recommends that more specific information be provided as to the status of residences closest to the LNG facility and the sendout pipeline, and the extent to which the Commission’s public participation effort involved low income and minority populations.

82. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*,²⁰ requires that specified federal agencies shall make achieving environmental justice part of their missions by identifying and addressing, as appropriate, disproportionately high and adverse human or environmental health effects of their programs, policies, and activities on minorities and low income populations. However, Executive Order 12898 applies to the agencies specified in section 1-102 of that order, and this Commission is not one of the specified agencies. Consequently, the provisions of Executive Order 12898 are not binding on this

²⁰ 59 Fed. Reg. 7629 (Feb. 11, 1994).

Commission.²¹ Nonetheless, in accordance with our usual practice, as part of the final EIS, the Commission has examined the LNG Clean Energy Project to insure that it does not have disproportionately high and adverse human health or environmental effects on minority or low income communities.

83. As indicated in the final EIS, the Mississippi Department of Environmental Quality (MDEQ) is the air permitting authority for the proposed project. MDEQ's regulations incorporate the federal requirements and establish permit review procedures for all facilities that emit pollutants to the ambient air. The LNG Clean Energy Project will have to obtain a state permit and comply with all applicable federal and state air regulations.

84. As discussed above, the cumulative impact modeling performed for this project indicated that air impacts should remain below the NAAQS. In addition, the final EIS recommended and this order requires Gulf LNG prepare a Fugitive Dust Control Plan to reduce nuisance dust emissions during construction activities. We note that since the nearest residence would be about 1.7 miles northwest of the LNG terminal site (that is, on the west side of the Bayou Casotte shipping channel), we do not believe there would be any impact on residences from construction related emissions. Further, no residences are located within 50 feet of the sendout pipeline. The closest residences are located about 0.4 mile west of the proposed pipeline facilities in the city of Pascagoula. Based on the above, we do not believe that the proposed project will have a disproportionately high and adverse human health or environmental effects on minority or low income communities or that any additional analysis of the environmental justice implications of this project is warranted.

85. With respect to public participation, the general public was given notice of the project and an opportunity to provide both oral and written comments on environmental issues that should be addressed during the environmental review process. The mailing list included federal, state, and local officials; agency representatives; conservation organizations; Native American tribes; local libraries and newspapers; landowners within 0.5 mile of the proposed LNG terminals; and property owners along the proposed pipeline route. We believe our public participation efforts on the project were open to anyone who wanted to participate including low-income and minority populations.

²¹ See *Weaver's Cove Energy, LLC*, 114 FERC ¶ 61,058 (2006).

6. Conclusions on Environmental Issues

86. The Commission has 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 the LNG Clean Energy 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 granted by this order for the LNG Clean Energy Project.

87. 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. This does not mean, however, 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.²² Gulf LNG and GLP 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 either Gulf LNG or GLP. Gulf LNG or GLP shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

IV. Summary

88. For the reasons set forth herein, and subject to the conditions set forth below, we find that Gulf LNG's import terminal is not inconsistent with the public interest under section 3. We further find, also subject to the conditions below, that GLP's project is required by the public convenience and necessity under section 7(c). Thus, we grant the requested authorizations to Gulf LNG and GLP.

89. At a hearing held on February 15, 2007, 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,

²² See, e.g., *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293 (1988); *National Fuel Gas Supply v. Public Service Comm.*, 894 F.2d 571 (2d Cir. 1990); and *Iroquois Gas Transmission System, L.P.*, 52 FERC ¶ 61,091 (1990) and 59 FERC ¶ 61,094 (1992).

The Commission orders:

(A) In Docket No. CP06-12-000, Gulf LNG is hereby authorized under section 3 of the NGA to site, construct, and operate its LNG terminal in Jackson County, Mississippi, as more fully described in this order and in the application.

(B) In Docket No. CP06-13-000, a certificate of public convenience and necessity is issued to GLP under section 7(c) of the NGA authorizing it to construct and operate a 5.02-mile long, 36-inch diameter pipeline, as more fully described in the order and in the application.

(C) The certificate authorized in Ordering Paragraph (B) above is conditioned upon GLP's compliance with all applicable Commission regulations, particularly paragraphs (a), (c), (e) and (f) of section 157.20 of the regulations.

(D) The construction of the proposed facilities shall be completed and made available for service within five years of the date of this order in accordance with section 157.20(b) of the Commission's regulations

(E) In Docket No. CP06-14-000, a blanket construction certificate is issued to GLP under Subpart F of Part 157.

(F) GLP's request for waiver of the Commission's open-access requirements in Part 284 is granted subject to the requirement in Ordering Paragraph (G) below.

(G) In the event that GLP receives a *bona fide* request from a shipper for firm open-access services as discussed in the order, it must file within 30 days with the Commission an application for a Part 284 blanket certificate authorizing it to transport natural gas under Part 284 of the Commission's regulations. Any request by GLP for Part 284 authorization must be filed with a pro forma tariff containing the terms and conditions of service and proposed rates.

(H) GLP is granted waivers of the applicable portions of Parts 201 and 260 of the Commission's regulations, as discussed in the body of the order; however, the waiver does not extend to the FERC's annual charge assessment. GLP is required to file page 520 of Form 2-A, as well as an officer certification of the filing, and to maintain records to separately identify the original cost and related depreciation on its gas pipeline consistent with the Commission's USofA.

(I) Gulf LNG and GLP shall comply with the environmental conditions contained in the Appendix to this order.

(J) Gulf LNG and GLP 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 either Gulf LNG or GLP. Gulf LNG or GLP shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

(K) The late motion to intervene filed by Total LNG is granted.

By the Commission.

(S E A L)

Magalie R. Salas,
Secretary.

Appendix

Environmental Conditions for the LNG Clean Energy Project

1. Gulf Energy 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 EIS, unless modified by the Order. Gulf Energy must:
 - a. request any modification to these procedures, measures, or conditions in a filing with the 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. For pipeline facilities, 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 LNG Clean Energy 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 the Order.
4. **Prior to any construction**, Gulf Energy shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors (EI), 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 all of the staff's recommended facility locations. **As soon as they are available, and before the start of construction,** Gulf Energy shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the Order. All requests for modifications of environmental conditions of the Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.
6. Gulf Energy 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 would 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, and 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 extra workspace allowed by the Upland Erosion Control, Revegetation, and Maintenance Plan, minor field realignments per landowner needs, and requirements which 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 construction begins**, Gulf Energy shall file an initial Implementation Plan with the Secretary for review and written approval by the Director of OEP describing how Gulf Energy will implement the mitigation measures required by the Order. Gulf Energy must file revisions to the plan as schedules change. The plan shall identify:
 - a. how Gulf Energy 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. the training and instructions Gulf Energy 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 Gulf Energy's organization having responsibility for compliance;
 - f. the procedures (including use of contract penalties) Gulf Energy will follow if noncompliance occurs; and
 - g. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
 - (1) the completion of all required surveys and reports;
 - (2) the mitigation training of onsite personnel;
 - (3) the start of construction; and
 - (4) the start and completion of restoration.
8. Gulf Energy 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 of the pipeline**, Gulf Energy shall mail the complaint procedures to each landowner whose property would be crossed by the project.
 - a. In its letter to affected landowners, Gulf Energy shall:

- (1) provide a local contact that the landowners should call first with their concerns; the letter should indicate how soon a landowner should expect a response;
 - (2) instruct the landowners that, if they are not satisfied with the response, they should call Gulf Energy's Hotline; the letter should indicate how soon to expect a response; and
 - (3) instruct the landowners that, if they are still not satisfied with the response from Gulf Energy's Hotline, they should contact the Commission's Enforcement Hotline at (888) 889-8030.
 - b. In addition, Gulf Energy shall include in its weekly status report a copy of a table that contains the following information for each problem/concern:
 - (1) the date of the call;
 - (2) the identification number from the certificated alignment sheets of the affected property;
 - (3) the description of the problem/concern; and
 - (4) an explanation of how and when the problem was resolved, will be resolved, or why it has not been resolved.
9. Gulf Energy shall employ an EI. The EI shall be:
 - a. responsible for monitoring and ensuring compliance with all mitigation measures required by the 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 7 above) and any other authorizing document;
 - c. empowered to order correction of acts that violate the environmental conditions of the Order, and any other authorizing document;
 - d. responsible for documenting compliance with the environmental conditions of the Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
 - e. responsible for maintaining status reports.
10. Gulf Energy 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 will 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 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 the Order, and the measures taken to satisfy their concerns; and
 - f. copies of any correspondence received by Gulf Energy from other federal, state or local permitting agencies concerning instances of noncompliance, and Gulf Energy's response.
11. Gulf Energy 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 the LNG facility has been constructed in accordance with Commission approval and applicable standards, can be expected to operate safely as designed, and the rehabilitation and restoration of the right-of-way is proceeding satisfactorily.
12. **Within 30 days of placing the certificated facilities in service**, Gulf Energy 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 Gulf Energy has complied with or will comply with. This statement shall also identify any areas affected by the project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
13. **Before construction**, Gulf Energy shall file with the Commission the following information on nonjurisdictional facilities, including the Mississippi Power Company electric transmission facilities and the Port of

Pascagoula water supply pipeline:

- a. final routing and design information, including a map depicting the location of the facilities;
- b. documentation of consultations with the appropriate agencies and the status of federal, state, or local permits or approvals required for their construction; and
- c. status and copies of agency clearances (or copies of any surveys and reports prepared) for wetlands, threatened and endangered species, and cultural resources

14. Gulf Energy shall file with the Commission the following information for the off-site waterfront fabrication and load-out facility:
 - a. a map depicting the location of the facility;
 - b. documentation of landowner approval; and
 - c. status or copies of any surveys and reports prepared for wetlands, threatened and endangered species, and cultural resources.

This information shall be filed with the Secretary for the review and written approval of the Director of OEP **before construction**. Gulf Energy shall also provide the status or copies of agency clearances for wetlands, threatened and endangered species, and cultural resources.

15. Gulf Energy shall prepare a HDD Plan that describes how the drilling operations would be conducted and monitored to minimize the potential for inadvertent drilling mud releases as well as procedures for cleanup of drilling mud releases and for sealing the hole if a drill cannot be completed. The HDD Plan shall be filed with the Secretary for the review and written approval of the Director of OEP **before construction**.
16. **Before construction**, Gulf Energy shall conduct, with the well owner's permission, pre- and post-construction monitoring of well yield and water quality for in-use wells within 150 feet of the construction work area. Within 30 days of placing the facilities in service, Gulf Energy shall file a report with the Secretary discussing whether any complaints were received concerning well yield or water quality and how each was resolved.
17. Gulf Energy shall replace any potable water supply system that it damages during construction and cannot repair to its former capacity and quality. **Within 1 year of completion of construction**, Gulf Energy shall file a report with the Secretary identifying all potable water supply systems damaged by construction and how they were repaired.

18. Gulf Energy shall file a site-specific plan depicting the location of the proposed contractor yard and staging area located 0.3 mile west of milepost 2.0 in relation to the wetlands located within the boundaries of the site. The site-specific plan should show how Gulf Energy would maintain a 50-foot setback from the wetlands or, if a 50-foot setback cannot be maintained, should include a request with justification for a variance from section VI.B.1.a of our Wetland and Waterbody Construction and Mitigation Procedures. The site-specific plan shall be filed with the Secretary for the review and written approval of the Director of OEP **before construction.**
19. Gulf Energy shall continue to consult with the COE, MDMR, NMFS, and other applicable agencies to finalize its Mitigation Plan. The final Mitigation Plan shall also specify that the annual report presenting data on the wetland restoration area be filed with the Commission, COE, MDMR, and NMFS. Gulf Energy shall file the final Mitigation Plan with the Secretary **before construction.**
20. Gulf Energy shall consult with the Grand Bay Reserve biologist to determine the need for developing site-specific measures that would avoid or minimize impacts on unique, rare, and imperiled species within the reserve. Additionally, Gulf Energy shall consult with the biologist to assess the potential for hazards or conflicts between construction activities and scheduled seasonal burns on the reserve. Results of consultations shall be filed with the Secretary **before beginning construction of the pipeline within the reserve.**
21. Gulf Energy shall develop a lighting plan consistent with the lighting guidelines developed by the FWS for siting, construction, operation, and decommissioning of communication towers, to the extent that those guidelines are consistent with applicable safety regulations and requirements. Gulf Energy shall file the lighting plan with the Secretary for the review and written approval of the Director of OEP **before construction.**
22. Gulf Energy shall conduct surveys in areas of suitable least tern nesting habitat if construction begins during the least tern nesting season (April 1 through June 30) in those areas. Results of the surveys, along with agency comments and concurrence, shall be filed with the Secretary for the review and written approval of the Director of OEP **before construction.**

23. Gulf Energy shall avoid clearing woody vegetation during the peak nesting period for migratory birds (April 1 through June 30). If vegetation clearing must be conducted during this time, Gulf Energy shall survey for all migratory bird nests **no more than 3 weeks before commencing work at the LNG terminal and along the sendout pipeline route**. If an active migratory bird nest is found, Gulf Energy shall consult with the FWS to identify the most appropriate measures that should be taken to avoid or minimize impacts.
24. Gulf Energy shall not begin construction activities at the LNG terminal and along the sendout pipeline route **until**:
 - a. the FERC completes any necessary consultations with the FWS and NMFS; and
 - b. Gulf Energy receives written notification from the Director of OEP that construction and/or implementation of conservation measures may begin.

If construction has not begun **within 1 year** from the date of issuance of the FERC approval of the project, Gulf Energy shall consult with the appropriate offices of the FWS and NMFS to update the species list and to verify that previous consultations and determinations of effect are still current. Documentation of these consultations, and the need for additional surveys and survey reports (if required), and FWS or NMFS comments on the surveys and survey reports and their conclusions, shall be filed with the Secretary before beginning construction.

25. Gulf Energy shall file the outcome of the consultations with the Mississippi Department of Transportation and Jackson County regarding the need for traffic mitigation measures with the Secretary **before construction**.
26. Gulf Energy shall prepare a Fugitive Dust Control Plan that specifies the following:
 - a. the precautions that would be taken to minimize fugitive dust emissions from construction activities and when/how the measures would be applied;
 - b. the individuals with authority to determine if/when water needs to be reapplied for dust control; and
 - c. the individuals with authority to stop work if the contractor does not comply with dust control measures.

This plan shall be filed with the Secretary for the review and written

approval of the Director of OEP **before construction.**

27. Gulf Energy shall make all reasonable efforts to ensure its predicted noise levels from the LNG terminal are not exceeded at the noise-sensitive area and file noise surveys 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 decibels on the A-weighted scale day-night sound level at a noise-sensitive area, Gulf Energy 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. Gulf Energy 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.
28. Gulf LNG shall **annually** review its Waterway Suitability Assessment relating to LNG marine traffic for the project; update the assessment to reflect changing conditions which may impact the suitability of the waterway for LNG marine traffic; provide the updated assessment to the cognizant Captain of the Port (COTP)/Federal Maritime Security Coordinator (FMSC) for review and validation and, if appropriate, further action by the COTP/FMSC relating to LNG marine traffic; and provide a copy to FERC staff.
29. **Prior to accepting** ships greater than 140,000 cubic meters in capacity, Gulf LNG shall provide the necessary information to demonstrate that the transient hazard areas identified in the final EIS are applicable. Gulf LNG shall file this information with the Secretary for review and written approval of the Director of OEP. This information shall also be provided to the Coast Guard.

Recommendation numbers 30 through 64 shall apply to the LNG terminal design and construction details. Information pertaining to these specific recommendations 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 as indicated by each specific recommendation. Items relating to Resource Report 13-Engineering and Design Material and security should be submitted as critical energy infrastructure information pursuant to 18 CFR Parts 388.112 and PL01-1. Information pertaining to items such as: off-site emergency response; procedures for public notification

and evacuation; and construction and operating reporting requirements would be subject to public disclosure. Gulf LNG shall file this information a minimum of 30 days before approval to proceed is required.

30. Complete plan drawings and a list of the hazard detection equipment shall be filed **prior to initial site preparation**. The list shall include the instrument tag number, type and location, alarm locations, and shutdown functions of the proposed hazard detection equipment. Plan drawings shall clearly show the location of all detection equipment.
31. A technical review addressing the following information for the proposed facility shall be filed prior to initial site preparation:
 - a. Identification of all combustion/ventilation air intake equipment and the distances to any possible hydrocarbon release (LNG, flammable refrigerants, flammable liquids, and flammable gases); and
 - b. A demonstration that these areas are adequately covered by hazard detection devices, including a description of how these devices would isolate or shutdown any combustion equipment whose continued operation could add to or sustain an emergency.
32. Complete plan drawings and a list of the fixed and wheeled dry-chemical, fire extinguishing, and high expansion foam hazard control equipment shall be filed **prior to initial site preparation**. The list shall include the equipment tag number, type, size, equipment covered, and automatic and manual remote signals initiating discharge of the units. Plan drawings shall clearly show the planned location of all fixed and wheeled extinguishers.
33. Facility plans showing the proposed location of, and area covered by, each monitor, hydrant, deluge system, hose, and sprinkler, as well as piping and instrumentation diagrams, of the fire water system shall be filed **prior to initial site preparation**.
34. A copy of the hazard design review and list of recommendations that are to be incorporated in the final facility design shall be filed **prior to initial site preparation**.
35. Drawings of the storage tank piping support structure and support of horizontal piping at grade shall be filed **prior to initial site preparation**.

36. Procedures shall be developed for off-site contractors' responsibilities, restrictions, limitations and supervision of these contractors by Gulf LNG staff, **prior to initial site preparation.**
37. Gulf LNG shall develop an Emergency Response Plan (including evacuation) and coordinate procedures with the Coast Guard, state, county, and 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/methods for residents and other public use areas that are within any transient hazard areas 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 Emergency Response Plan shall be filed with the Secretary for review and written approval by the Director of OEP **prior to initial site preparation.** Gulf LNG shall notify FERC staff of all planning meetings in advance and shall report progress on the development of its Emergency Response Plan at **3-month intervals.**

38. The Emergency Response Plan shall include a Cost-Sharing 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. The Cost-Sharing Plan shall be filed with the Secretary for review and written approval by the Director of OEP **prior to initial site preparation.**

39. The **final design** of the hazard detection equipment shall identify manufacturer and model.
40. The **final design** of the fixed and wheeled dry-chemical, fire extinguishing, and high expansion foam hazard control equipment shall identify manufacturer and model.
41. The **final design** shall include detailed drawings of the spill control system to be applied to the LNG tank roof.
42. The **final design** shall include details of the LNG tank tilt settlement and differential settlement limits between each LNG tank and piping and procedures to be implemented in the event that limits are exceeded.
43. The **final design** shall include details of the pipe supports and restraints designed to prevent damage to piping systems and equipment in the event of a storm surge anticipated for a Category 4 hurricane.
44. The **final design** shall include details of the boil-off gas flow measurement system provided for each tank.
45. The **final design** shall include P&IDs and drawings of the meter station.
46. The **final design** shall include a fire protection evaluation carried out in accordance with the requirements of National Fire Protection Association 59A, chapter 9.1.2.
47. The **final design** shall include details of the shutdown logic, including cause and effect matrices for alarms and shutdowns.
48. The **final design** shall include emergency shutdown of equipment and systems activated by hazard detection devices for flammable gas, fire, and cryogenic spills, when applicable.
49. The **final design** shall include details of the air gaps to be 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: shall continuously monitor for the presence of a flammable fluid; shall alarm the hazardous condition; and shall shutdown the appropriate systems.

50. The **final design** shall include a hazard and operability review of the completed design. A copy of the review and a list of the recommendations shall be filed.
51. The P&IDs in the **final design** shall show and number all valves including drain, vent, main, and car sealed.
52. The **final design** shall specify that the LNG tank carbon steel piping support plates and connections to piping supports shall be designed to ensure that corrosion protection is adequately provided and provisions for corrosion monitoring and maintenance of carbon steel attachments are to be included in the design and maintenance procedures.
53. The **final design** shall include safeguards to be installed to protect aboveground firewater piping, including post indicator valves, from inadvertent damage.
54. The **final design** shall specify that all hazard detection equipment shall include redundancy and fault detection and fault alarm monitoring in all potentially hazardous areas and enclosures.
55. All valves including drain, vent, main, and car sealed valves shall be tagged in the field **during construction and prior to commissioning**.
56. The design details and procedures to record and to prevent the tank fill rate from exceeding the maximum fill rate specified by the tank designer shall be filed **prior to commissioning**.
57. A tabulated list of the proposed hand-held fire extinguishers shall be filed **prior to commissioning**. The list shall include the equipment number, type, size, number, and location. Plan drawings shall include the type, size, and number of all hand-held fire extinguishers.
58. Operation and maintenance procedures and manuals, as well as safety procedure manuals, shall be filed **prior to commissioning**.
59. The contingency plan for failure of the LNG tank outer containment shall be filed **prior to commissioning**.
60. 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**.

61. The maintenance procedures to be filed **prior to commissioning** shall state that a foundation elevation survey of all LNG tanks shall be made on an annual basis.
62. **Prior to commissioning**, Gulf LNG shall coordinate, as needed, with the Coast Guard to define the responsibilities of Gulf LNG's security staff in supplementing other security personnel and in protecting the LNG tankers and the terminal.
63. 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**.
64. 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, projected schedule for completion, problems encountered, and remedial actions taken. Problems of significant magnitude shall be reported to the FERC **within 24 hours**.

Recommendation numbers 65 through 68 shall apply throughout the life of the facility:

65. The facility shall be subject to regular FERC staff technical reviews and site inspections on at least an **annual basis** or more frequently as circumstances indicate. Prior to each FERC staff technical review and site inspection, the Company 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. 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, shall be submitted.
66. **Semi-annual** operational reports shall be filed 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 off-site 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, 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 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.

67. 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, the Commission shall be notified **within 24 hours** and procedures for corrective action shall be specified.
68. Significant non-scheduled events, including safety-related incidents (*i.e.*, LNG or natural gas releases, fires, explosions, mechanical failures, unusual over pressurization, and major injuries) and security related incidents (*i.e.*, attempts to enter site, suspicious activities) shall be reported to Commission staff. 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. In all instances, notification shall be made to Commission staff **within 24 hours**. 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 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 condition that could lead to a hazard and cause a 20 percent reduction in operating pressure or shutdown of operation of a pipeline or an LNG facility;
 - l. 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, Commission staff would determine the need for an on-site inspection by Commission staff, and the timing of an initial incident report (normally within 10 days) and follow-up reports.