Appendix C

107 FERC ¶ 61,278
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;
Nora Mead Brownell, and Joseph T. Kelliher.

Freeport LNG Development, L.P. Docket No. CP03-75-000

ORDER GRANTING AUTHORIZATION
UNDER SECTION 3 OF THE NATURAL GAS ACT

(Issued June 18, 2004)

1. On March 28, 2003, Freeport LNG Development, L.P. (Freeport) filed an application under section 3 of the Natural Gas Act requesting authority to site, construct, and operate a liquefied natural gas (LNG) terminal on Quintana Island, southeast of the City of Freeport, in Brazoria County, Texas, as well as a 9.6-mile long, 36-inch diameter, send-out pipeline and meter facilities.

2. Freeport states that it will receive, store, and vaporize imported LNG at its proposed terminal and transport up to 1.5 billion cubic feet (Bcf) of natural gas per day through its proposed send-out pipeline. Freeport asserts that its proposed project will serve the intrastate Texas market and will not provide jurisdictional transportation service, since the project will not interconnect with any interstate pipelines.

3. In this order, we will authorize Freeport's proposals to construct an LNG terminal and send-out pipeline under section 3.

I. Background and Proposals

4. Freeport is a limited partnership with one general partner and three limited partners. Freeport LNG-GP, Inc. (Freeport GP) is the general partner.[1] Freeport's limited partners are: (1) Freeport LNG Investments, LLC, a company wholly owned by Mr. Michael Smith, with a 60 percent ownership interest; (2) Cheniere LNG, Inc., a

[1] Michael Smith is the CEO, President, Secretary, and Treasurer of Freeport GP.

wholly owned subsidiary of Cheniere Energy, Inc., with a 30 percent ownership interest; and (3) Contango Oil & Gas Company, an oil and gas exploration and production company, with a 10 percent ownership interest.[2]

5. Freeport's proposed terminal will consist of a marine terminal, LNG transfer lines, and LNG storage and vaporization units.[3] The marine terminal includes a maneuvering area and a protected, single-berth, LNG unloading dock that will have the capability of unloading 200 ships per year.[4] The LNG will be transported by double-walled, cryogenic service pipe to cryogenic storage tanks where the LNG will be stored in a liquefied state at atmospheric pressure. The LNG will be pressure boosted by pumps and vaporized in heat exchangers to pipeline-quality natural gas.

6. Specifically, Freeport proposes to construct and operate the following facilities:

- an LNG ship maneuvering area;
- a protected, single-berth unloading dock, equipped with three liquid unloading arms and one vapor return arm, and mooring and breasting dolphins;
- a reconfigured storm protection levee and a permanent access road;
- two 26-inch diameter (32-inch outside diameter) double-walled, stainless steel, vacuum insulated LNG transfer lines; one 16-inch diameter vapor return line; and service lines (two-inch diameter instrument air line, three-inch diameter nitrogen line, three-inch potable water line, and an eight-inch diameter firewater line);
- two double-walled LNG storage tanks, each with a nominal volume of 1,006,000 barrels, which is equivalent to 3.5 Bcf of gas;

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[2] On December 21, 2003, Freeport and Freeport GP entered into an agreement with ConocoPhillips Company providing that, upon the satisfaction of certain conditions, ConocoPhillips will become a 50 percent owner of Freeport GP and will have some management rights with respect to the development, construction, and operation of the proposed LNG terminal.

[3] Freeport will construct most of its facilities on property leased from the Brazos River Harbor Navigation District, Port of Freeport.

[4] Freeport states that it will receive LNG tankers from "Africa, Trinidad, and other locations around the world."

- six 3,240 gallon per minute in-tank pumps;
- seven 2,315 gallon per minute high-pressure LNG booster pumps;
- three boil-off gas compressors and a boil-off gas condensing system;
- six high-pressure LNG vaporizers, using a primary closed circuit water/glycol solution heated with twelve water/glycol boilers during cold weather; a set of intermediate heat exchangers, using a secondary circulating water system heated by an air tower during warm weather; and circulating pumps for both systems;
- two natural gas super heaters and two fuel gas heaters; and
- ancillary utilities, buildings, and service facilities at the LNG terminal.

7. Freeport also proposes to construct and operate a 9.6-mile, 36-inch diameter, send-out pipeline and appurtenant facilities,[5] originating at a pig launcher adjacent to the storage and vaporization facilities on Quintana Island and extending to the Stratton Ridge meter station (which will be the terminus of the Freeport project).[6] The proposed pipeline will have a maximum allowable operating pressure of 1,250 psi and be able to transport up to 1.5 Bcf per day.[7] At Stratton Ridge, Freeport states that it is considering connections with several intrastate pipelines including Dow Pipeline Company (Dow Pipeline), Kinder Morgan Texas Pipeline Company, L.P., Houston Pipeline Company, Texas Utilities Pipeline Company, and Enterprise Pipeline, L.P.

8. Freeport contemplates that the proposed terminal, send-out pipeline, and meter station will be constructed and placed into service for the 2006-2007 winter heating season.

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[5] The appurtenant facilities consist of a pig launcher, pig receiver, and meter facilities.

[6] Freeport proposes to construct the Stratton Ridge meter station near the intersection of County Road 227 and Farm-to-Market Road 523.

[7] CenterPoint Energy, Inc. will construct a non-jurisdictional electric transmission line from an existing substation to the proposed terminal.

9. Freeport states that it entered into binding agreements for 100 percent of the capacity of the proposed facilities with ConocoPhillips and Dow Chemical Company (Dow Chemical). Specifically, on December 21, 2003, Freeport entered into an agreement with ConocoPhillips, whereby ConocoPhillips agreed to reserve up to 1.0 Bcf per day of capacity until February 28, 2033, with certain extension rights. In addition, in February 2004, Freeport entered into an agreement with Dow Chemical, whereby Dow Chemical agreed to reserve up to 0.5 Bcf of capacity per day for 20 years.

10. Freeport emphasizes that its proposed project will not be used to provide interstate transportation service, because the project will not interconnect with any interstate pipelines. Specifically, Freeport contends that Natural Gas Pipeline Company of America and Tennessee Gas Pipeline Company, the interstate pipelines closest to the Stratton Ridge meter station, interconnect with Dow Pipeline Company (Dow Pipeline) approximately 40 miles north of Stratton Ridge. Freeport states that the LNG will be pressure boosted by pumps at the vaporization facility in order to transport the gas from the LNG facility through the proposed send-out pipeline, but that line pressure will decrease as gas flows to the Stratton Ridge meter station. If its proposed send-out pipeline interconnects with Dow Pipeline, Freeport estimates that gas will flow from the send-out pipeline into the Dow Pipeline system at a pressure of 1,000 psi and will continue to lose pressure as it flows north on the Dow Pipeline system. In order to enter the Natural and Tennessee systems, Freeport contends that the gas would need to be pressure boosted from approximately 700 to 1,100 psi – the normal operating pressure of each pipeline system at the points of interconnection with Dow Pipeline. Since there are no compression facilities at the point of interconnect between the Natural and Tennessee systems and the Dow Pipeline system, Freeport contends that gas flowing north from the Stratton Ridge meter station will not be able to enter the Natural and Tennessee systems.

11. Freeport contends that projections show that Texas will continue to experience increased demand for natural gas for the foreseeable future. Freeport contends that its proposals are in the public interest because they will provide an additional source of supply for the growing Texas markets and will bolster the LNG trade between the United States and foreign countries.

II. Interventions

12. Notice of Freeport's application was published in the Federal Register on April 14, 2003 (68 Fed. Reg. 17,930). The parties listed in Appendix A to this order filed timely, unopposed motions to intervene. Timely, unopposed motions to intervene are granted by operation of Rule 214.

13. Calpine Corporation, Project Technical Liaison Associates, Inc., and Edwin and Patricia Tudor filed untimely motions to intervene. Calpine's, Project Technical Associates', and the Tudor's untimely motions have demonstrated an interest in this

proceeding and have shown good cause for seeking to intervene out of time. Further, the untimely motions will not delay, disrupt, or otherwise prejudice this proceeding. Thus, we will grant the untimely motions to intervene.

14. Jerry Masters, a member of the Freeport City Council, filed a motion to intervene opposing Freeport's application. Although not styled as a protest, we will treat Mr. Masters' motion as a protest. Freeport filed an answer to Mr. Master's protest. Answers to protests are not allowed under our rules.[8] Nevertheless, we will accept Freeport's answer because it has provided information that assisted us in our decision-making process.

15. Mr. Masters contends that there are safety issues related to the proposals; that there will be an adverse impact on the restrictions in the Texas State Implementation Plan (SIP), which implements Environmental Protection Agency air quality regulations; and that there will be increased shipping traffic that will accelerate a "severe erosion problem on and around Quintana Island."

16. In its answer, Freeport asserts that it will construct, operate, and maintain its proposed terminal in accordance with the United States Department of Transportation's (DOT) *Federal Safety Standards for Liquefied Natural Gas Facilities* in 49 C.F.R. Part 193 and with the *National Fire Protection Association Standards for Production, Storage, and Handling of LNG*. Freeport also asserts that it will construct, operate, and maintain its proposed pipeline in accordance with the DOT's *Transportation of Natural and Other Gas by Pipeline: Minimum Safety Standards* in 49 C.F.R. Part 192. Freeport concludes that it will construct its proposed facilities in a manner that meets or exceeds all applicable safety standards and requirements.

17. Freeport also contends that it will operate its proposed facilities in a manner that minimizes any adverse impact on air quality in Brazoria County. Freeport asserts that it will not fire the warm water/glycol boilers associated with the LNG vaporizers during "ozone season" from May through September, but that it will fire the boilers from October through April when ozone formations are not a concern. Freeport states that it will adhere strictly to all federal and state air quality restrictions.

18. Finally, Freeport contends that one LNG tanker will dock at the receiving terminal every two or three days and that, due to the narrow configuration of the channel, LNG tankers will necessarily be required to move "slowly and deliberately." Freeport contends that tanker and support vessel traffic will have minimal impact on erosion on and around Quintana Island.

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[8] 18 C.F.R. § 385.213(a)(2) (2003).

III. Discussion

19. Since the proposed LNG terminal facilities will be used to import natural gas from a foreign country, the construction and operation of the facilities and the location of the facilities require approval by the Commission under section 3 of the Natural Gas Act.[9]

20. Section 3 of the Natural Gas Act provides that the Commission "shall issue such order on application . . . ." unless it finds that the proposal "will not be consistent with the public interest." Here, the record shows that the intrastate market for natural gas continues to grow in Texas, that Freeport's proposed project will provide additional supplies of natural gas to customers in Texas, and that the capacity of the project is fully subscribed. In addition, Freeport is a new entrant to the LNG business in the United States. Freeport has no existing customers who might be adversely affected by the costs or risks of recovery of those costs from the proposed project. Thus, we find that approval of Freeport's LNG terminal, send-out pipeline, and meter facilities will be consistent with the public interest. In addition, we will authorize Freeport's proposed service for ConocoPhillips and Dow Chemical at the rates, terms, and conditions agreed to by the parties.

IV. Environmental Review

21. On May 28, 2004, our staff issued a final Environmental Impact Statement (EIS) for the Freeport project.[10] Approximately 500 copies of the final EIS were mailed to agencies, groups, and individuals on the mailing list.

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[9] The regulatory functions of section 3 of the Natural Gas Act 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 such facilities shall be located, and with respect to natural gas that involves the construction of new domestic facilities, the place of entry for imports or exit for exports. DOE Delegation Order No. 00-004.00, 67 Fed. Reg. 8,946 (2002).

Freeport has not applied for import authorization from the Department of Energy because it does not intend to use the proposed facilities to import LNG on its own behalf. ConocoPhillips and Dow Chemical will need to apply for import authorization.

[10] On June 4, 2004, the Environmental Protection Agency published a Notice of Availability of the final EIS in the Federal Register.

22. The final EIS addressed the project's purpose and need, alternatives, geology, soils and sediments, water resources, wetlands and vegetation, wildlife and aquatic resources, land use, socioeconomics, cultural resources, air quality and noise, safety, and cumulative impacts. The United States Fish and Wildlife Service (FWS), the National Marine Fisheries Service (NOAA Fisheries), the United States Coast Guard, and the United States Army Corps of Engineers (COE) were cooperating agencies in the preparation of the final EIS.

23. The final EIS addressed comments from 22 individuals, organizations, companies, and local authorities who attended the public meeting held in Lake Jackson, Texas, on December 9, 2003. The final EIS also addressed letters filed by five federal agencies, two state agencies, six companies and organizations, and six individuals responding to the draft EIS.[11] The commenters' primary concerns related to erosion, migratory bird impacts, impacts on residences, the relocation of Xeriscape Park, wetland and dredging impacts, air emissions, alternative LNG terminal sites, marine traffic congestion, and LNG safety.

24. As discussed in the final EIS, shoreline erosion in the area of the Freeport project may have an adverse effect on the LNG terminal through the loss of protective shoreline, and the resulting encroachment by Gulf waters and subsequent storm damage. The construction of the project, however, will not increase the rate of erosion of the island. Protection from the potential flooding effects associated with hurricane storm surges has been factored into the design of the LNG terminal facilities.

25. Mr. Masters contends that increased ship traffic will accelerate erosion. A report by the Texas Shoreline Change Project, a regional shoreline-monitoring and shoreline-change analysis program, indicated that the Town of Quintana will have serious shoreline erosion problems if the current rate of erosion continues unchecked. The erosion will occur whether or not the proposed project is constructed. The erosion in this area appears to be the result of natural causes. Moreover, the erosion discussed in the report is unlikely to be affected by ship traffic in the channel. We conclude that the project will not have a significant effect on coastal erosion.

26. Construction of the Freeport LNG Project will affect a total of 80.9 acres of wetlands -- 52.0 acres at the terminal site and 28.9 acres along the pipeline route. Of the 52.0 acres of wetlands affected at the LNG terminal site, 47.9 acres will be permanently affected through dredging or filling. The remaining 4.1 acres will be temporarily affected and will be allowed to revert to pre-construction conditions. Freeport proposes to

[11] We issued the draft EIS on November 6, 2003.

mitigate the permanent loss of these wetland areas through compliance with the mitigation requirements identified by the COE, FWS, and Texas Parks and Wildlife Department, including preservation of beach and coastal wetland habitat in the project area. At this time, the agencies are still determining the total compensatory mitigation required. The final EIS recommended that Freeport file, prior to the start of construction, a final wetland mitigation plan. We agree with this recommendation.

27. The primary impact on wildlife will be the cutting, clearing, and/or removal of existing vegetation within the construction work areas, the permanent loss of habitat, and the creation of new obstacles to movement associated with the new above-ground facilities. Disturbance, displacement, and mortality of individuals will occur during construction, due to the permanent conversion of scrub/shrub habitat to grassland/upland habitat at the storage and vaporization facility site and the creation of open water habitat from estuarine marsh at the marine berth site. In addition, the final EIS recommended that Freeport conduct additional monitoring of bird strikes during and after construction. The additional information collected during this monitoring can be used to refine mitigation measures to reduce migratory bird impacts during operation. Overall, however, project impacts are not expected to substantially affect the local wildlife population.

28. Freeport indicates that one residence will be relocated or demolished due to the construction of the marine berth on Quintana Island. Freeport proposes to purchase this residence to mitigate the impact but, at this time, Freeport has not reached an agreement with the homeowner. If an agreement is not reached, the Brazos River Harbor Navigation District of Brazoria County has the authority under Texas law to condemn the property. In any case, the landowner will be compensated for the property. Freeport also identifies 13 residences that will be located within 50 feet of the construction work areas for the proposed pipeline. Seven of these residences are on the opposite side of the road from the construction work area. The final EIS concluded that sufficient distance exists between the residences and the construction work area to mitigate any potential effects on these residences. The remaining six residences are in the Turtle Cove area of Brazoria County where Freeport proposes to install the pipeline using the HDD technique, thereby avoiding any surface construction activities and avoiding impacts to these residences.

29. Freeport proposes to relocate a county boat ramp and the Xeriscape Park on Quintana Island. Consultation with the Brazoria County Parks Department indicates that the preferred location for the relocated boat ramp would be within a new county park proposed for a location on the north side of the Intracoastal Waterway at the site of the former swing bridge. Freeport agreed to fund the construction of the boat ramp in the new county park. Freeport modified its proposal for the replacement of Xeriscape Park to include the purchase and development of properties directly across the street from the existing park. In addition, Freeport proposes to develop and landscape the property along Lamar Street in front of the proposed storage and vaporization facility. However, since

the park plans are very general at this time, the final EIS recommended that Freeport continue its consultation with the town and bird groups to develop final plans and a schedule of the construction of these two proposed replacement park areas, prior to the start of construction. We agree with this recommendation.

30. In its comments on the draft EIS, the United States Environmental Protection Agency stated that because the LNG terminal would be within a nonattainment zone for ozone, the Commission would be required to conduct a General Conformity Determination for the Freeport project. On April 6, 2004, we issued a Draft General Conformity Determination for public comment, which examined direct and indirect emissions to determine the Freeport project's general conformity with Texas' SIP for air quality. The initial analysis indicated that the project would be in general conformity with the SIP. The comment period for the Draft General Conformity Determination expired on May 12, 2004 and only one comment was received. The Texas Council on Environmental Quality (TCEQ) submitted a Conditional General Conformity Certification that concurred with the findings of the Draft General Conformity Determination, if Freeport agrees to implement specific mitigation and the Commission completes the Final General Conformity Determination. The final EIS recommended that Freeport not be allowed to begin construction until we have issued a Final General Conformity Determination indicating that the project will be in conformity with the SIP and Freeport agrees to TCEQ's mitigation measures.[12] This should alleviate Mr. Masters' concerns.

31. The final EIS evaluated potential ship traffic congestion impacts. The additional LNG vessel traffic should have only a minimal impact on other vessel traffic in the Freeport Harbor Channel. Freeport has committed to provide three tugs of sufficient design to adequately handle the LNG ships, to make the tugs available to other port users when there are no LNG ships at the terminal, and to schedule the LNG ships last in line when the queuing of ships is necessary to facilitate port entry after a long closure.

32. The final EIS included an analysis of public safety issues associated with the Freeport project. The analysis identified the principal properties and hazards associated with LNG, presented a summary of the design and technical review of the cryogenic aspects of the LNG terminal, discussed the types of storage and retention systems, analyzed the thermal radiation and flammable vapor cloud hazards resulting from credible land-based LNG spills, analyzed the safety aspects of LNG transportation by ship, and reviewed issues related to security and terrorism.

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[12] On June 10, 2004, we issued a Final General Conformity Determination.

33. In addition, we revised the final EIS to include the ABSG Consulting Inc. study, *Consequence Assessment Methods for Incidents Involving Releases From Liquefied Natural Gas Carriers*, in order to prepare site specific calculations of the thermal radiation and flammable vapor dispersion distances for hypothetical one meter and 2 ½-meter diameter holes in the LNG tankers.[13] Using this methodology, we estimated, for these size holes respectively, distances to range from 2,870 to 5,930 feet for a thermal radiation of 1,600 Btu per square foot per hour, the level which is hazardous for unprotected persons located outdoors; from 2,230 to 4,550 feet for a thermal radiation of 3,000 Btu per square foot per hour, an acceptable level for wooden structures; and from 1,370 to 2,730 feet for a thermal radiation of 10,000 Btu per square foot per hour, a level sufficient to damage process equipment at the terminal.

34. A number of comments on the ABSG Consulting Inc. report suggest the use of different values or modifications to the modeling to more accurately reflect "real world" LNG spill behavior. Upon review of these comments, ABSG Consulting Inc. refined various components of its consequence assessment methodologies. These changes are discussed in detail in the "Staff's Responses to Comments on the Consequence Assessment Methods for Incidents Involving Releases From Liquefied Natural Gas Carriers" issued in Docket No. AD04-6-000. However, in brief, the orifice discharge coefficient to calculate spill rates has been changed from 1.0 to 0.65; the approximate pool shape of an uncontained LNG spill on water is now represented as a semicircle instead of a circle; the estimated effects of friction between the LNG pool and the water surface on pool spread has been reduced; the relationship between decreasing spill rate and pool size has been refined; the rate of heat influx from water has changed from 37 to 85 kW per square meter; and the solid flame model has been modified to represent a

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[13] On May 14, 2004, we issued a notice of availability of the ABSG Consulting Inc. report, with comments due on May 28, 2004. The report recommended methods for estimating spill rates, pool spread and vapor generation for unconfined LNG spills on water, thermal radiation from pool fires on water, and dispersion of flammable vapors so that our staff could calculate site specific hazards for LNG import terminal applications filed with the Commission. Comments on the report were filed by 49 parties, including 22 individuals, nine industry groups, three local governments, three environmental organizations, and 12 from the scientific community. Some of the comments point to the need for additional large scale testing and research, the development of new models, the need to consider LNG vessel design characteristics, and the need to proceed with a rulemaking process. While some commenters contend that the report should not be used for any realistic evaluation of existing or proposed LNG projects until further developed, other commenters assert that the report supports their claim that LNG projects should be denied in their area. We have posted our staff's responses to the comments on the Commission's website in Docket No. AD04-6-000.

two-zone pool fire. Using this revised methodology for one and 2 ½-meter diameter holes respectively, ABSG Consulting Inc. estimated distances to range from 2,200 to 4,340 feet for a thermal radiation of 1,600 Btu per square foot per hour; from 1,680 to 3,260 feet for 3,000 Btu per square foot per hour; and from 1,010 to 1,910 feet for 10,000 Btu per square foot per hour.

35. These estimates of credible "worst case" scenarios provide guidance in developing the operating restrictions for LNG vessel movements in the Freeport Harbor Channel, as well as in establishing potential impact areas for emergency response and evacuation planning.[14] The 5.5-mile transit through the Freeport Harbor Channel to the LNG berth is primarily in offshore waters, with the exception of the final mile through the barrier island. On the barrier island, within 2,200 to 4,340 feet of the Freeport Harbor Channel are approximately 120 to 300 low density permanent and vacation residences in the communities of Surfside Beach and Quintana. Outdoor public use areas within 2,200 to 4,340 feet include Jetty Park, Quintana Beach County Park, Xeriscape Park, and the Neotropical Bird Sanctuary, as well as the county beaches along the Gulf. Assuming an LNG vessel transit through the channel at three knots while under tug assist, these areas will be exposed to a potential transient hazard of less than 20 minutes. In addition, a temporary hazard will exist around the slip during part of the 10 to 12-hour period that an LNG vessel is at the dock and unloading cargo.

36. The operational restrictions that the Brazos River Pilots Association (Brazos Pilots) will impose on LNG vessel movements through this area, the requirements that the Coast Guard will institute in its operating plan, as well as the design features of the LNG vessels will minimize the possibility of a hazardous event occurring in this portion of the Freeport Harbor Channel. Specifically, the LNG tankers used to import LNG to Freeport must be constructed and operated in accordance with the International Maritime Organization's (IMO) Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk, the International Convention for Safety of Life at Sea, and 46 C.F.R. Part 154, which contains this country's safety standards for vessels carrying bulk liquefied natural gas. The IMO Code requires extensive use of combustible gas

[14] The orifice model does not account for the double-hull structure of an LNG vessel and the pool spread models do not account for wave action and current. As a result, the size of a pool on the water in our analysis is overestimated.

detection in cargo tank and inter-barrier spaces, as well as temperature and pressure alarms. Fire protection must include water deluge systems, a firewater system with monitors throughout the deck, a dry chemical fire extinguishing system for hydrocarbon fires, and carbon dioxide systems for machinery areas. The United States requires foreign flag LNG tankers to possess a valid IMO Certificate of Fitness and a Coast Guard Certificate of Compliance.[15]

37. All large ships entering the Freeport Harbor Channel are boarded by a pilot from the Brazos Pilots. The Brazos Pilots restrict large vessels to daylight transit and one-way traffic in the Freeport Harbor Channel. They also impose a moving safety zone for all large crude oil tankers that restrict other traffic two miles ahead, two miles astern, and 200 yards to the sides.[16]

38. In addition to the Brazos Pilots, the Coast Guard may control the transit of the LNG vessel through the harbor and while unloading cargo. Typical Coast Guard requirements include 96-, 48-, and 24-hour advance notification of the vessel arrival. Upon arrival at the sea buoy, Coast Guard personnel may board the LNG vessel for an inspection of the ship's safety systems and a review of the manifest. Other requirements may include: a Coast Guard escort through the channel and to the dock, establishment of a moving safety and/or security zone around the vessel while enroute and during unloading operations, an inspection of the dock's safety systems prior to commencing cargo transfer, monitoring of all operations until the vessel departs, and maintaining security of the dock and vessel.[17]

39. We believe that the operational controls by the Coast Guard and the Brazos Pilots, as well as the characteristics of the Freeport Channel, minimize the possibility of an LNG cargo spill from a grounding, collision, or allision. The generally even and soft sea bottom (without rocky protrusions) of the Freeport Harbor Channel makes an LNG spill from cargo tanks highly unlikely in a grounding incident. Further, the moving safety zone imposed by the Brazos Pilots and the moving safety and/or security zone that the Coast Guard may enforce will clear the harbor of the vessels with the tonnage and speed required to cause an LNG spill in a collision.[18] With respect to a vessel alliding with an LNG ship moored at the terminal, a simulation study was performed to examine its

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[15] See section 4.12.5 in the final EIS.

[16] See section 4.12.5.1 in the final EIS.

[17] See section 4.12.5.2 in the final EIS.

[18] See section 4.12.5.3 in the final EIS.

vulnerability from a disabled vessel and recommendations were made to prevent an allision.[19] As a result, we believe that the risk of an LNG cargo release and subsequent formation of a flammable vapor cloud or fire from a LNG vessel casualty is minimal.

40. The final EIS considered the possibility of a deliberate attack on an LNG ship by a terrorist group. Protection of the LNG vessel and the import terminal will involve personnel from the Coast Guard, Freeport's security staff, and state and local law enforcement. The Coast Guard may establish a safety and/or security zone around the LNG vessels in transit and while docked. Only personnel or vessels authorized by the Coast Guard's Captain of the Port or the District Commander will be permitted in the safety/security zone.

41. Freeport will provide security for the terminal according to a Facility Security Plan prepared under 33 C.F.R. Part 105 and approved by the Captain of the Port.[20] Security at the facility will be provided by both active and passive systems.

42. The Coast Guard provided additional comments on the revised Marine Safety section in the final EIS. These comments were received after the final EIS was sent to the printer, so we will address them as comments on the final EIS. The Coast Guard recommends deleting the following two sentences:

> We believe that the responsibilities of this security staff should be expanded to enhance overall security. Therefore, we recommend that:
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> • Freeport . . . should coordinate with the Coast Guard to define the responsibilities of Freeport['s] . . . security staff in supplementing other security personnel and in protecting the LNG tankers and terminal.[21]

43. The actions required in the condition quoted above may ultimately be compelled under the Facility Security Plan, that Freeport will prepare and that the Coast Guard will review in accordance with Part 105. Since the Coast Guard is responsible for the security of LNG terminals, we will delete this recommendation.

44. On January 19, 2004, a blast occurred at Sonatrach's Skikda, Algeria LNG liquefaction facility that killed 27 workers and injured 56 others. Preliminary findings of the accident investigation suggest that cold hydrocarbons leaked and were fed to a high-

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[19] See section 4.12.5.1 in the final EIS.

[20] See section 4.12.6 in the final EIS.

[21] See page 4-132 in the final EIS.

pressure steam boiler by the combustion air fan, causing an explosion inside the boiler fire box. This resulted in a larger explosion of hydrocarbon vapors in the immediate vicinity. Although there are major differences between the equipment involved in the Skikda accident and the proposal herein (e.g., high-pressure steam boilers that power refrigerant compressors will not be used here, nor are they used at any LNG facility under our jurisdiction), the sequence of events identified potential failure modes that warrant further evaluation. Thus, Condition 32 in this order requires that Freeport conduct a technical review of its facility design that identifies all combustion/ventilation air-intake equipment and the distance(s) to any possible hydrocarbon release and demonstrate that these areas are adequately covered by hazard detection devices to isolate or shutdown any combustion equipment.

45. Three federal agencies share in the oversight of the safety and security of LNG import terminals: the Coast Guard, the Research and Special Programs Administration of DOT, and the Commission. On February 11, 2004, the three participating agencies entered into an Interagency Agreement to ensure that they work in a coordinated manner to address the full range of issues regarding safety and security at LNG import terminals, including the terminal facilities and tanker operations, and to maximize the exchange of information related to the safety and security aspects of the LNG facilities and related marine operations. The Interagency Agreement ensures a seamless safety and security review by the three federal agencies.

46. The final EIS examined alternative locations and technologies for the project. No existing LNG facilities have the space to add the capacity proposed in this project. The final EIS did not identify any alternative location or technology that would be preferable to the proposed project. Alternatives were eliminated from consideration because they did not meet the purpose of the project, could not be developed in the time frame required by the applicant, involved greater environmental impacts, or the property was not available for development.

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

48. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions in this order. We encourage cooperation between Freeport and local authorities. However, this does not mean that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.[22]

49. Freeport 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 Freeport. Freeport shall file written confirmation of such notification with the Secretary of the Commission within 24 hours

50. The Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application and exhibits thereto, submitted in support of the authorization sought herein, and upon consideration of the record,

The Commission orders:

(A) Freeport is authorized under section 3 of the Natural Gas Act to site, construct, and operate its LNG terminal on Quintana Island, and a 9.6-mile, 36-inch diameter, send-out pipeline and meter station, as more fully described in this order and in the application.

(B) Freeport's proposed service for ConocoPhillips and Dow Chemical is approved.

(C) Freeport shall complete the proposed LNG terminal and place it in service within three years of the date of the final order in this proceeding.

(D) Freeport shall comply with the environmental conditions contained in Appendix B to this order.

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

(E) The untimely motions to intervene of Calpine Corporation, Project Technical Liaison Associates, Inc., and Edwin and Patricia Tudor are granted.

By the Commission. Commissioner Kelly not participating.

(S E A L)

Magalie R. Salas,
Secretary.

Appendix A

Motions to Intervene

BG LNG Services, LLC
Calpine Corporation
Cheniere Energy, Inc.
CMS Trunkline LNG Company, LLC
ConocoPhillips Company
Dow Chemical Company
Exxon Mobil Corporation
FPL Energy Forney, LP and Lamar Power Partners, L.P. (joint motion)
Marathon Oil Company
Masters, Jerry
Project Technical Liaison Associates, Inc.
Sempra Energy LNG Corporation
Shell Na LNG, Inc.
TotalFinaElf Gas & Power North America, Inc.
Tudor, Edwin and Patricia
Weaver's Cove Energy, L.L.C.

Appendix B

Environmental Conditions for the Freeport Project

1. Freeport 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 this order. Freeport must:

   a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);

   b. justify each modification relative to site-specific conditions;

   c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and

   d. receive approval in writing from the Director of the Office of Energy Projects (OEP) **before using that modification.**

2. The Director of OEP has delegation authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the project. This authority shall allow:

   a. the modification of conditions of this order; and

   b. the design and implementation of any additional measures deemed necessary (including stop-work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from project construction and operation.

3. **Prior to any construction**, Freeport shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors (EIs), and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.

4. The authorized facility locations shall be as shown in the EIS, as supplemented by filed alignment sheets, and shall include the staff's recommended facility locations. **As soon as they are available, and before the start of construction**, Freeport shall file with the Secretary revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by this order. All requests

for modifications of environmental conditions of this order or site specific clearances must be written and must reference locations designated on these alignment maps/sheets.

5. Freeport shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that will be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP **before construction** in or near that area.

This requirement does not apply to extra workspace allowed by the Upland Erosion Control, Revegetation and Maintenance Plan or minor field realignments per landowner needs and requirements that do not affect other landowners or sensitive environmental areas such as wetlands.

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

a. implementation of cultural resources mitigation measures;

b. implementation of endangered, threatened, or special concern species mitigation measures;

c. recommendations by state regulatory authorities; and

d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.

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

a. how Freeport will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;

b. the number of EIs assigned per spread, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;

c. company personnel, including EIs and contractors, who will receive copies of the appropriate material;

d. what training and instructions Freeport 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 Freeport's organization having responsibility for compliance;

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

7. Freeport 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**, Freeport shall mail the complaint procedures to each landowner whose property would be crossed by the project.

a. In its letter to affected landowners, Freeport shall:

(1) provide a local contact that the landowners should call first with their concerns; the letter shall 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 Freeport's Hotline (the letter shall indicate how soon to expect a response); and

(3) instruct the landowners that, if they are not satisfied with the response from Freeport's Hotline, they should contact the Commission's Enforcement Hotline at (888) 889-8030.

b. In addition, Freeport 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.

8. Freeport shall employ a team of environmental inspectors. The environmental inspectors shall be:

a. responsible for monitoring and ensuring compliance with all mitigation measures required by this order and other grants, permits, certificates, or other authorizing documents;

b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 6 above) and any other authorizing document;

c. empowered to order correction of acts that violate the environmental conditions of this order, and any other authorizing document;

d. a full-time position, separate from all other activity inspectors;

e. responsible for documenting compliance with the environmental conditions of this order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and

f. responsible for maintaining status reports.

9. Freeport shall file updated status reports prepared by the environmental inspector 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 environmental inspector(s) during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/ permit requirements imposed by other federal, state, or local agencies);

c. corrective actions implemented in response to all instances of noncompliance, and their cost;

d. the effectiveness of all corrective actions implemented;

e. a description of any landowner/resident complaints which may relate to compliance with the requirements of this order, and the measures taken to satisfy their concerns; and

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

10. Freeport must receive written authorization from the Director of OEP **before commencing service** of the project. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way is proceeding satisfactorily.

11. **Within 30 days of placing the authorized facilities in service**, Freeport 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 Freeport has complied with or will comply with. This statement shall also identify any areas along the right-of-way where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.

12. Freeport shall file the comments of the Texas State Historic Preservation Office (SHPO) and the FWS on CenterPoint Energy, Inc.'s planned electric transmission line with the Secretary **prior to its construction**. Freeport shall defer obtaining service from the planned electric transmission line until the comments have been filed with the Secretary.

13. Freeport shall provide a final design plan, developed in consultation with the Velasco Drainage District, identifying the post-construction location and grades for the drainage canals located on the storage and vaporization facility site and at the marine terminal. Freeport shall demonstrate that the final design of the new drainage system will provide adequate drainage of storm water for the facility and the eastern end of Quintana Island. Freeport shall file this design plan with the Secretary, for review and written approval by the Director of OEP, **prior to the start of construction**.

14. Freeport shall file with the Secretary a plan for the crossing of each waterbody if the directional drill is unsuccessful. This shall be a site-specific plan that includes scaled drawings identifying all areas that would be disturbed by construction. Freeport shall file this plan concurrent with its application to the COE for a permit to construct using this plan. The Director of OEP must review and approve this plan in writing **before construction of the crossing**.

15. Freeport shall prepare a final dredging plan, in consultation with appropriate resource management agencies including the COE and the Port of Freeport, that will provide details of the amounts of dredged material to be placed, the dredging techniques that will be used, and the type and location of the pipeline used to transport the dredged material, as well as the measures to be employed to mitigate potential adverse effects on water quality, marine habitats and species, and vessel passage. This plan shall be filed with the Secretary for review and written approval by the Director of OEP **prior to construction**.

16. Freeport shall prepare, in consultation with TCEQ, a detailed Spill Prevention, Containment and Countermeasure Plan for construction and operation of the project. The plan shall address personnel training, detailed secondary containment plans for materials storage as well as equipment refueling, designated equipment refueling areas, an equipment list to be kept on site for spill countermeasures, equipment inspection measures, and Best Management Practices that Freeport plans to implement. The plan shall be filed with the Secretary, for review and written approval by the Director of OEP, **prior to the start of construction**.

17. **Prior to construction**, Freeport shall file with the Secretary the final Wetland Mitigation Plan prepared in consultation with COE, NOAA Fisheries, FWS, Texas Park and Wildlife Department (TPWB), and Gulf Coast Bird Observatory (GCBO).

18. Freeport shall comply with the revegetation methods described in our Upland Erosion Control, Revegetation and Maintenance Plan and our Wetland and Waterbody Construction and Mitigation Procedures. If Freeport wishes to request a variance to the revegetation requirements, a plan shall be prepared addressing the amount and condition of seed available in the native hay, conditions for storage and handling of the hay, and application rates for applying the hay. Freeport shall also include a plan for monitoring the long-term revegetation of areas reseeded using the native hay. This plan shall be filed with the Secretary for review and written approval by the Director of OEP **prior to the start of construction**.

19. **Prior to the start of construction** of the LNG storage facility, Freeport shall file with the Secretary, for review and written approval by the Director of OEP, a final facility lighting design plan, as well as operational procedures established to minimize impacts on the bird population and to minimize lighting impacts on nearby residences.

20. Freeport shall monitor bird strikes at the facility during the spring and fall migrations from the start of construction activities through the end of the year following commencement of service. Protocol for the monitoring shall be developed in consultation with the GCBO and TPWD. Within 30 days of completion of the monitoring, Freeport shall file a report with the Secretary documenting the results of the monitoring and recommending any additional mitigation measures. As a result, the Director of OEP may determine that additional mitigation measures may be necessary.

21. Freeport shall not begin construction activities until:

a. staff receives comments from the NOAA Fisheries regarding the proposed action;

b. staff completes formal consultation with the NOAA Fisheries, if required; and

c. Freeport has received written notification from the Director of OEP that construction or use of mitigation may begin.

22. If facilities are not constructed **within one year** from the date of issuance of the authorization, Freeport shall consult with the appropriate offices of the FWS/NOAA Fisheries to update the species list and to determine if additional surveys are required.

23. Freeport shall not deed the property for the relocated Xeriscape Park to the Town of Quintana until the park is complete. Freeport shall continue to work with the FWS, GCBO, the Houston Audubon Society (Audubon Society), and the Town of Quintana, to develop a master plan for the relocated Xeriscape Park. The master plan shall include:

a. a detailed site plan for the redeveloped area indicating existing and final topography and the location, size, configuration and construction specifications of pedestrian access, trails, viewing areas, parking, raised beds or other gardens, new or replacement bridges, benches, picnic areas, water ways, or other features as determined by the group;

b. a detailed planting plan indicating species and locations of all vegetation to be planted, soil enhancements, and any existing areas of vegetation to be retained. The reuse of desirable vegetation removed from the existing park is encouraged for those species that are expected to have a high transplantation success rate;

c. a schedule identifying by September 6, 2004 (prior to the beginning of the fall bird migration season), if possible, but not later than March 1, 2005 (prior to the beginning of the spring bird migration season), the construction period and the projected completion date of the replacement park; and

d. a brief description of the collaborative process used to develop the master plan, including the meeting dates and participants, significant issues and their resolution.

Freeport shall file the master plan with the Secretary for **review and written approval by the Director of OEP prior to the start of construction.**

24. Freeport shall continue to consult with the FWS, GCBO, Audubon Society, and the Town of Quintana to develop a detailed site plan for the park facilities within the site for the storage and vaporization facility. This plan shall include a detailed landscaping plan indicating the location of pedestrian access, viewing areas, and parking for visitors. Freeport shall file this information along with a schedule showing the construction period and the completion date of the park with the Secretary for **review and written approval by the Director of OEP prior to construction.**

25. Freeport shall not begin construction of the project until it files a copy of the consistency determination issued by the Coastal Coordination Council with the Secretary.

26. If any hazardous waste is uncovered during construction, Freeport shall:

a. stop work at the contaminated site, leaving contaminated equipment and materials within the contaminated area; and

b. notify all required agencies (including the Commission).

27. Freeport, in cooperation with the Texas Department of Transportation and other local entities responsible for transportation issues including the Coast Guard, Brazoria

County, Surfside Beach, and the City of Freeport, shall prepare a Transportation Management Plan that details specific measures that would be used to transport materials and construction workers to the project work sites. Aspects of the plan may include, but are not limited to, identification of off-site vehicle parking areas, alternative worker transportation methods including buses and/or barges, traffic control measures, traffic control personnel, and construction and delivery hours. Freeport shall file the plan, along with evidence of consultation with appropriate agencies, with the Secretary for review and written approval by the Director of OEP **prior to the start of construction**.

28. Freeport shall defer implementation of any treatment plans/measures (including archaeological data recovery); construction; and use of all staging, storage, and temporary work areas and new or to-be-improved access roads until:

a. Freeport files with the Secretary cultural resources survey reports and any required treatment plans and the SHPO's comments; and

b. The Director of OEP reviews all cultural resources survey reports and plans and notifies Freeport in writing that treatment plans/measures may be implemented or construction may proceed.

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

29. Freeport shall not begin construction of the project **until it has received written approval by the Director of OEP of Freeport's filing stating that Freeport will comply with all requirements of the General Conformity Determination**.

30. Freeport shall develop a noise mitigation plan to reduce noise associated with pile driving activities. This plan shall include an evaluation of potential mitigation measures including the use of vibratory hammers, augured piles, and/or a noise sleeve installed over the pile column to reduce pile driving noise levels. The plan shall identify which mitigation measures will be used, the hours and days of the week that pile driving activities will occur, and what standards will be used to determine when the use of noise mitigation will be required. The final plan shall be filed with the Secretary, for review and written approval by the Director of OEP, **prior to the initiation of any construction activities**.

31. Freeport shall file a noise survey with the Secretary no later than 60 days after placing the LNG terminal into service. If the noise attributable to the operation of the terminal exceeds an Ldn of 55 dBA at any nearby noise sensitive area, Freeport shall file a report on what changes are needed and shall install additional noise controls to meet

that level within one year of the in-service date. Freeport shall confirm compliance with this requirement by filing a second noise survey with the Secretary no later than **60 days** after it installs the additional noise controls.

32. Freeport shall provide a technical review of its facility design that:

a. identifies all combustion/ventilation air-intake equipment and the distance(s) to any possible hydrocarbon release (LNG, flammable refrigerants, flammable liquids, and flammable gases); and

b. demonstrates that these areas are adequately covered by hazard detection devices and indicates how these devices will isolate or shutdown any combustion equipment whose continued operation could add to or sustain an emergency.

Freeport shall file this review with the Director of OEP for review and approval **prior to construction.**

33. Freeport shall provide a barrier to prevent LNG from flowing outside the plant property in the event that the primary and secondary storage tank containers of a single tank fail. This can be achieved by the storm-surge barrier/levee Freeport proposes to extend. It also shall be designed to allow removal of rainwater (or any spill over from a storm) without open drainage. A system for detecting the presence of cold liquid/vapor must be incorporated into the design to automatically close drainage gates in the event of an LNG spill. Freeport shall submit the final design of this barrier to the Commission staff for review and approval **prior to construction**.

34. Freeport shall equip all LNG storage tanks with remotely controlled top and bottom fill capability.

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

36. Freeport shall include a contingency plan for outer containment failure in its emergency response procedures.

37. Freeport shall design LNG tank carbon steel piping support plates and connections to piping supports to ensure that corrosion protection is adequately provided. Provisions for corrosion monitoring and maintenance of carbon steel attachments are to be included in the design and maintenance procedures.

38. Freeport shall provide horizontal and rotational movement indicators on the primary containment tanks and instrumented for easy reading. Prior to construction, criteria shall be established for horizontal and rotational movement of the inner vessel for use during and after cool down.

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

40. Freeport shall install redundant temperature detectors within the annular space of each tank to detect a leak from the inner wall. Particular emphasis shall be given to the lower portions of the annular space.

41. Freeport shall provide each LNG tank with a remotely controlled discretionary vent.

42. Freeport shall make a foundation elevation survey of all LNG tanks on an annual basis.

43. Prior to construction, Freeport shall provide detailed drawings and specifications of the spill protection system to be applied to the LNG tank roofs.

44. Provisions shall be made in the design to permit the operation of the send out pumps, at design flow, in both LNG tanks when the tank levels are significantly different.

45. Freeport shall design LNG booster pumps to supply LNG with the minimum anticipated specific gravity at the design flow and design send-out pressure. The LNG booster pumps, discharge piping, and vaporizers shall also be designed for the maximum specific gravity condition.

46. Freeport shall ensure that Glycol/water circulation is in operation at all times when LNG is present in the booster pump discharge piping or when the temperature in the LNG inlet channel to any vaporizer is below 0°F.

47. Provisions shall be made to recover boil-off gas, under all conditions in the event that the send-out vaporization system is not in operation.

48. The instrument air supply shall be independent of other air demands on the facility.

49. Dry air shall be supplied to the nitrogen generation unit.

50. Freeport shall provide "air gaps" or other means to prevent gas migration along conduits into control equipment.

51. Above-ground protection of the underground LNG transfer lines shall be provided to prevent unauthorized access to the area.

52. Freeport shall provide detailed drawings of the impoundment systems for the above-ground transfer lines, including cross sections prior to construction of the project.

53. Freeport shall establish safeguards to protect above-ground, fire-water piping, including post indicator valves, from inadvertent damage.

54. Freeport shall equip flammable gas and UV/IR hazard detectors with local instrument status indication as an additional safety feature.

55. Freeport shall install all hazard detectors with redundancy and fault detection and fault alarm monitoring in all potentially hazardous areas and enclosures.

56. Security personnel requirements for prior to and during LNG carriers unloading shall be provided prior to commissioning.

57. Freeport shall install an intrusion detection system to enhance the proposed security system.

58. Freeport shall develop procedures for off site contractors' responsibilities, restrictions, limitations, and supervision of these contractors by Freeport staff.

59. There is concern about the maneuverability of LNG ships within the area where LNG ships dock and turn around and the possibility of an LNG ship alliding with a ship docked at the area North/Northeast of the proposed turning area where another dock exists. A Maneuverability Simulation Study shall be conducted for all sizes of LNG ships to be used for the proposed operation and submitted to the Brazos Pilots Association for their review and comment and to the Commission's and Coast Guard's staff for their review and approval.

60. Freeport shall file operation and maintenance procedures and manuals, as well as emergency plans and safety procedure manuals, with the Commission prior to commissioning operations.

61. Freeport shall notify the Commission's staff of any proposed revisions to the security plan and physical security of the facility prior to commissioning the proposed facilities.

62. Freeport shall report progress on the proposed construction project in monthly reports submitted to the Commission. Details should include a summary of activities, problems encountered, and remedial actions taken. Freeport shall report problems of significant magnitude to the Commission on a timely basis. The Commission's staff will hold additional site inspections and technical reviews prior to commencement of operation.

63. The facility shall be subject to regular Commission staff technical reviews and site inspections on at least a biennial basis, or more frequently as circumstances indicate. Prior to each Commission staff technical review and site inspection, Freeport 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. Freeport shall provide up to date detailed piping and instrumentation diagrams reflecting facility modifications and 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.

64. Freeport shall file semi-annual operational reports with the Commission to identify changes in facility design and operating conditions, abnormal operating experiences, activities (including ship arrivals, quantity and composition of imported LNG, vaporization quantities, boil-off/flash gas, etc.), and plant modifications including future plans and progress thereof. Abnormal operating experiences should 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 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 should be reported. Reports should be submitted within 45 days after each period ending June 30 and December 31.

65. In addition to the above items, Freeport shall also include a section entitled "Significant Plant Modifications Proposed for the Next 12 Months (dates)" in the semi-annual operational reports. Such information will provide the Commission's staff with early notice of anticipated future construction/maintenance projects at the LNG facility.

66. 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) shall be reported to the Commission's staff **within 48 hours**. In the event an abnormality is of significant magnitude to threaten public or employee safety, cause significant property damage, or interrupt service, notification shall be made

immediately, without unduly interfering with any necessary or appropriate emergency repair, alarm, or other emergency procedure. This notification practice shall be incorporated into the LNG facility's emergency plan. Examples of reportable LNG related incidents include:

a. fire;

b. explosion;

c. property damage exceeding $10,000;

d. death or injury requiring hospitalization;

e. free flow of LNG for five minutes or more that results in pooling;

f. unintended movement or abnormal loading by environmental causes, such as an earthquake, landslide, or flood, that impairs the serviceability, structural integrity, or reliability of an LNG facility that contains, control, or processes gas or LNG;

g. any crack or other material defect that impairs the structural integrity or reliability of an LNG facility that contains, controls, or processes gas or LNG;

h. any malfunction or operating error that causes the pressure of a pipeline or LNG facility that contains or processes gas, or LNG, to rise above its maximum allowable operating pressure (or working pressure for LNG facilities), plus the build up allowed for operation of pressure limiting or control devices;

i. a leak in an LNG facility that contains or processes gas, or LNG, that constitutes an emergency;

j. inner tank leakage, ineffective insulation, or frost heave that impairs the structural integrity of an LNG storage tank;

k. any safety-related condition that could lead to an imminent hazard and cause (either directly or indirectly by remedial action of the operator), for purposes other than abandonment, a 20 percent reduction in operating pressure or shutdown of operation of a pipeline or an LNG facility that contains or processes gas or LNG;

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

m. the judgment of the LNG personnel and/or management, even though it did not meet the above criteria or the guidelines set forth in an LNG facility's incident management plan.

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

67. Freeport shall demonstrate the suitability of foamglass for lining the on-shore dock trough and sump prior to construction. Freeport shall provide detailed drawings and specifications of the impoundment system which resolve staff's concerns or should provide an alternative method for containing the flammable vapor exclusion zone from this source.

68. In conjunction with the Local Emergency Planning Committee, Industrial Care Group, and town officials, Freeport shall develop emergency evacuation routes/methods for the areas of Quintana Island and Surfside Beach that are within any transient hazard zone and file these routes with the Secretary for review and approval by the Director of OEP **prior to construction**.

69. Freeport shall develop an Emergency Response Plan (including evacuation) as part of its Facility Security Plan and coordinate procedures with local emergency planning groups; fire departments; state, local, and law enforcement officials; and the Coast Guard. This plan shall include at a minimum:

a. designated contacts with state and local emergency response agencies;

b. scalable procedures for the prompt notification of appropriate local officials and emergency response agencies based on the level and severity of potential incidents;

c. procedures for notifying residents and recreational users within areas of potential hazard;

d. evacuation routes for residents on Quintana Island and Surfside Beach, recreational users at the jetties and beaches, and campers at Quintana County Park;

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.

Freeport shall file the Emergency Response Plan with the Secretary for review and approval by the Director of OEP **prior to commencement of service**. Freeport shall notify the Commission's staff of all meetings, in advance, and shall report progress on its Facility Security Plan at **six month intervals starting at the commencement of construction**.

108 FERC ¶ 61,253

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;
Nora Mead Brownell, and Joseph T. Kelliher.

Freeport LNG Development, L.P. Docket No. CP03-75-001

ORDER GRANTING REQUESTS FOR REHEARING AND CLARIFICATION

(Issued September 20, 2004)

1. On July 2, 2004, Freeport LNG Development, L.P. filed a timely request for clarification or, in the alternative, a request for rehearing of the order issued in *Freeport LNG Development, L.P.*, 107 FERC ¶ 61,278 (June 18, 2004).

2. The June 18 Order authorized Freeport to site, construct, and operate a liquefied natural gas (LNG) terminal and send-out pipeline to serve the intrastate Texas market. This order extends the three-year deadline for constructing Freeport's project to five years; clarifies ship scheduling issues in Freeport Harbor following a port closure; and clarifies that Freeport can operate the warm water/glycol boilers during ozone season, if necessary for the safe and efficient operation of the project as long as operation of the boilers is in compliance with federal and state air quality requirements.

Background

3. The June 18 Order approved Freeport's proposals to site, construct, and operate a LNG terminal on Quintana Island near Freeport, Texas, as well as a 9.6-mile long, 36-inch diameter, send-out pipeline and meter facilities under section 3 of the Natural Gas Act. Freeport proposed to receive, store, and vaporize imported LNG at its terminal and transport up to 1.5 billion cubic feet of natural gas per day through the send-out pipeline. Freeport stated that its proposals would only serve the intrastate Texas market.

4. Ordering Paragraph (C) required Freeport to construct and place its project into service within three years of the date of the order. The order also stated that "Freeport has committed . . . to schedule the LNG ships last in line when the queuing of ships is necessary to facilitate port entry after a long closure." In addition, the order referenced Freeport's statement that it would not fire the warm water/glycol boilers associated with the LNG vaporizers during "ozone season" from May through September.

Issues Raised for Rehearing or Clarification

5. Freeport contends that the three-year construction time frame should be increased to five years in order to provide a reasonable cushion in case contingencies arise. Freeport states that with a five-year construction window, it can meet pre-construction environmental mitigation conditions and make an allowance for unforeseen delays.

6. Since Freeport claims that it will need more than three years to construct its proposed project and place it into service in order to meet pre-construction environmental mitigation conditions and to make an allowance for unforeseen delays, we will modify Ordering Paragraph (C) to provide Freeport with up to five years from the date of the June 18 Order (*i.e.*, June 18, 2009) to complete construction of the authorized facilities. The five-year term is consistent with the terms authorized for the construction of other LNG terminals.[1] Thus, we will grant Freeport's request for rehearing.

7. Freeport contends that ship scheduling issues are in need of clarification. The June 18 Order stated that "Freeport has committed . . . to schedule the LNG ships last in line when the queuing of ships is necessary to facilitate port entry after a long closure."[2]

8. Freeport contends that its only intention in making this commitment was to disclaim a right of priority in obtaining a place in the queuing of ships following an extended port closure. Freeport asserts that the language in the June 18 Order goes beyond its statement to indicate that LNG ships should be last in line. Freeport believes that port officials should be allowed discretion to determine the queuing of ships to minimize the adverse impacts of ship traffic congestion following a port closure.

9. We will grant the clarification requested by Freeport. We believe that the scheduling of ship traffic should be made by port officials with knowledge of Freeport Harbor. For this reason, we will revise the statement "Freeport has committed . . . to schedule the LNG ships last in line when the queuing of ships is necessary to facilitate port entry after a long closure" to read "Freeport has committed . . . to follow the orders of those officials responsible for scheduling port traffic for the purpose of minimizing the impact of ship traffic congestion when the queuing of ships is necessary to facilitate port entry after a long closure."

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[1] *See Cameron LNG, LLC*, 104 FERC ¶ 61,269 (2003).

[2] 107 FERC ¶ 61,278 at P 31.

10. Freeport contends that the operational protocol for the warm water/glycol boilers is in need of clarification. The June 18 Order stated that:

> Freeport asserts that it will not fire the warm water/glycol boilers associated with the LNG vaporizers during "ozone season" from May through September, but that it will fire the boilers from October through April when ozone formations are not a concern. Freeport states that it will adhere strictly to all federal and state air quality restrictions.[3]

11. Freeport states that it does not intend to operate the warm water/glycol boilers during ozone season, but conditions could arise that would make the operation of the boilers necessary for the safe and efficient operation of the project in circumstances that would not jeopardize compliance with federal and state environmental concerns. For example, Freeport states that it may need to operate the boilers when the cooling towers need unscheduled maintenance or incur a mechanical breakdown. Freeport asserts that the authorization should not restrain it from using the warm water/glycol boilers when such operation is in compliance with federal and state air quality requirements.

12. The June 18 Order restricted the operation of the boilers to protect air quality. If the requirements of the other permitting agencies can be met, we do not object to the operation of the boilers during ozone season, if necessary for the safe and efficient operation of the project. Thus, we will clarify the June 18 Order to allow the operation of the warm water/glycol boilers during ozone season, as required for the safe and efficient operation of the project, as long as the operation of the boilers is in compliance with all applicable federal and state air quality requirements.

The Commission orders:

(A) Ordering Paragraph (C) in the June 18 Order is modified to provide that Freeport's facilities must be constructed and made available for service within five years of the date of the June 18 order, *i.e.*, by June 18, 2009.

(B) The June 18 Order is clarified to provide that Freeport shall follow the orders of those officials responsible for scheduling port traffic after a port closure.

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[3] *Id.* at P 17.

(C) The June 18 Order is clarified to allow the operation of the warm water/glycol boilers during ozone season, as required for the safe and efficient operation of the project, so long as the operation of the boilers is in compliance with all applicable federal and state air quality requirements.

By the Commission. Commissioner Kelly not participating.

(S E A L)

Linda Mitry,
Acting Secretary.

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112 FERC ¶61,194
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Nora Mead Brownell, and Suedeen G. Kelly.

Freeport LNG Development, L.P. Docket No. CP03-75-002

ORDER AMENDING SECTION 3 AUTHORIZATION

(Issued August 17, 2005)

1. On April 1, 2005, Freeport LNG Development, L.P. (Freeport LNG) filed an application to amend the authorization issued June 18, 2004, pursuant to section 3 of the Natural Gas Act, in Docket No. CP03-75-000. That order authorized Freeport LNG to site, construct and operate the Freeport LNG Project.[1] In this application, Freeport LNG proposes to modify the project's send-out pipeline by increasing its diameter from 36- to 42-inches. In this order, the Commission amends Freeport LNG's section 3 authorization as requested.

Background and Proposal

2. In the June 18, 2004 Order, the Commission, pursuant to section 3 of the NGA,[2] authorized Freeport LNG to site, construct and operate the Freeport LNG Project,

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[1] *Freeport LNG Development, L.P.*, 107 FERC ¶ 61,278, *order granting rehearing and clarification*, 108 FERC ¶ 61,253 (2004).

[2] The regulatory functions of section 3 of the NGA were transferred to the Secretary of Energy in 1977 pursuant to section 301(b) of the Department of Energy Organization Act (Pub. L. No. 95-91, 42 U.S.C. § 7101 *et seq*). 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 such facilities shall be located and, with respect to natural gas that involves the construction of new domestic facilities, the place of entry for imports or exit for exports. DOE Delegation Order No. 00-004.00, 67 *Fed. Reg.* 8,946 (2002).

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consisting of a new LNG import terminal on Quintana Island, southeast of the City of Freeport, in Brazoria County, Texas, and an associated 9.6-mile, 36-inch diameter, send-out pipeline extending from the LNG terminal to the Stratton Ridge meter station in Brazoria County, Texas. Freeport LNG proposed to receive, store and vaporize imported LNG at the terminal and transport up to 1.5 Bcf per day (Bcfd) of regassified LNG through the send-out pipeline.

3. The Freeport LNG Project is currently fully subscribed. However, Freeport LNG states in its application that it has received additional requests for deliveries of gas when the currently authorized facilities go into service. Freeport LNG also indicates that it anticipates additional requests to meet future market demand.[3] Therefore, to enable Freeport LNG to meet currently identified and future market demand, Freeport LNG requests authorization to construct a 42-inch diameter send-out pipeline, in lieu of the currently authorized 36-inch diameter pipeline.

4. Freeport LNG explains in a May 13, 2005 supplement to its application that increasing the diameter of the send-out pipeline from 36- to 42-inches will also increase the operational reliability and flexibility of the pipeline, providing benefits which will accrue to its current customers. Specifically, Freeport LNG explains that this increase in pipeline diameter will increase system pressure and thus improve the deliverability at Freeport LNG's Stratton Ridge delivery point, where there would otherwise be a pressure drop between the delivery point and interconnected pipeline systems. Freeport LNG asserts that reducing the pressure drop will increase the delivery pressures to the downstream pipelines, resulting in a significant increase in line pack that would translate into increased working volumes.

5. Further, according to Freeport LNG, the higher delivery pressure would increase the send-out pipeline's capacity and operational flexibility, thereby enabling Freeport LNG to satisfy peak natural gas demand without adding costly compression facilities. During periods of high demand (generally on cold winter days and hot summer days), Texas intrastate natural gas pipeline systems are delivering at maximum capacity to supply fuel for electrical power generation and gas distribution systems. At peak conditions, pipeline systems are often strained to deliver gas at pressures adequate to fire gas-powered turbine generators. Use of the proposed 42-inch diameter pipeline, coupled with the Freeport LNG import terminal peaking capabilities, would allow downstream pipelines to operate at higher capacities and higher pressures.

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[3] In Docket No. CP05-361-000, Freeport LNG seeks authority to expand its LNG import terminal facilities to meet anticipated future demand.

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6. Freeport LNG maintains that since construction of the send-out pipeline has not yet commenced, increasing the diameter of the pipeline at this time would eliminate the need to construct costly compression or looping facilities in the near future. Further, Freeport LNG maintains that construction of the larger diameter pipeline at this time would not change the construction procedures, schedule, personnel requirements, rights-of-way or workspace of the original proposal. The only change would be a somewhat larger and wider trench, which can be accommodated within the workspace designated in Freeport LNG's original application. Freeport LNG notes that its amended proposal is a stand-alone project that is not dependent on an expansion of the LNG facilities because the increased diameter of the send-out pipeline is necessary to meet presently identified demand and to provide operational benefits.

Interventions

7. Notice of Freeport LNG's application to amend its NGA section 3authorization was published in the *Federal Register* on April 19, 2005, 70 Fed. Reg. 20,363 (2005). No motions to intervene, notices of intervention or protests were filed.

Discussion

8. Since the proposed pipeline will be used to import natural gas from a foreign country, the construction and operation of the pipeline upgrade is subject to the Commission's jurisdiction under section 3 of the NGA.

9. Section 3 of the NGA provides that the Commission "shall issue such order on application . . .," unless it finds that the proposal "will not be consistent with the public interest." Here, the record shows that the capacity of the project is fully subscribed and requests for future deliveries have been received. Thus, the Freeport LNG Project, as modified, will enhance Freeport LNG's ability to provide needed supplies of natural gas to customers in the Texas market, which the Commission found to be in the public interest in the June 18 Order, as clarified in the September 20 Order on rehearing.

10. Additionally, increasing the diameter of the send-out pipeline from 36- to 42-inches will provide Freeport LNG with more operational flexibility by maintaining higher delivery pressures at the Stratton Ridge delivery point at the terminus of the line. The increase in pipeline diameter will have the potential to increase delivery pressures at the Stratton Ridge delivery point by as much as 13 percent, enabling Freeport LNG to respond to larger hourly swings in demand on its system.

11. The proposed modification to the project, involving only a change in the diameter of the 9.6-mile send-out pipeline, will not change the proposed construction footprint or construction procedures. Changing the pipeline diameter at this time will obviate the

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need to construct an additional pipeline or compression in the near future, which could result in additional environmental impacts. Thus, for these reasons, the Commission finds that authorizing construction of the larger diameter pipeline at this time will be consistent with the public interest.

Environmental Review

12. An environmental assessment (EA) for Freeport LNG's proposal to amend its previous authorization was prepared. The EA addressed geology; soil; water resources; vegetation; wildlife; fisheries; threatened and endangered species; land use; cultural resources; air quality; noise; safety, and alternatives. The EA did not identify any environmental impacts or increased safety risks which would result from the proposed increase in pipeline diameter. Although installing a larger diameter pipeline would involve a slightly deeper and wider trench, Freeport LNG would use the previously proposed and authorized project footprint, construction techniques, and equipment and thus would not require any additional ground disturbance.

13. Three individuals filed comments in response to the EA, generally raising issues previously addressed in the Environmental Impact Statement (EIS) prepared for the original project and by the Commission's June 18, 2004 Order. One commenter suggests that the increased pipeline diameter would increase the risk of a leak or explosion in proximity to her property and urges that the buffer zone between the LNG facility and her residence be increased. We note that the concerns about explosions and spills discussed in the EIS and the June 18, 2004 Order relate to the transportation and delivery of LNG to the storage and vaporization facilities, not to the operation of the send-out pipeline which will transport natural gas in vapor form. The increase in pipeline diameter will not increase the risks of a pipeline accident to any significant extent. As we stated in the June 18, 2004 Order, Freeport LNG will construct and operate the send-out pipeline in accordance with the Department of Transportation's safety standards which take into consideration the size and location of natural gas pipelines in setting requirements for pipeline thicknesses and the depths of the pipeline trenches.[4]

14. Another commenter expressed concern that the send-out pipeline would be located above ground in a floodplain. However, the pipeline will be buried and the approved design of the pipeline takes into account its placement in a floodplain. Concern was also evidenced that the pipeline could be accidentally or intentionally damaged without anyone knowing about it, thereby creating a risk for residents in proximity to it. The pipeline will be placed on property controlled by Freeport LNG and/or the Port of

[4] *See* 49 C.F.R. Part 192 (2005).

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Freeport. The route runs along the main road on the island in a built-up area. Accordingly, it would be highly unlikely that anyone could conduct any type of excavations near the pipeline that could harm it without someone noticing. Moreover, pipelines monitor a pipeline's operation electronically and by visual inspection; thus leaks or other damage of any sort would be discovered promptly.

15. The proposed increase in pipeline diameter would not result in any environmental impacts that were not described and addressed in the EIS for the whole project. Based on the discussion in the EA, we conclude that, if constructed and operated in accordance with the procedures outlined in Freeport LNG's amendment and the environmental conditions in the Appendix to this order, approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment.

16. Any state or local permit issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions in this order. The Commission encourages cooperation between Freeport LNG and local authorities. However, this does not mean that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.[5]

17. Freeport LNG 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 Freeport LNG. Freeport LNG shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

18. On August 17, 2005, the Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application and exhibits thereto, submitted in support of the authorization sought herein, and upon consideration of the record,

The Commission orders:

(A) The authorization issued pursuant to section 3 of the NGA in Docket No. CP03-75-000, as clarified in Docket No. CP03-75-001, for Freeport LNG to site,

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

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construct and operate the Freeport LNG Project is amended to authorize construction of a 42-inch diameter send-out pipeline, as described and conditioned herein, and as more fully described in Freeport LNG's application.

(B) The authorization issued in Paragraph (A) is subject to the terms and conditions set forth in the Commission's June 18, 2004 Order, as clarified on September 20, 2004, and on the environmental conditions listed in the Appendix to this order.

(C) Freeport LNG 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 Freeport LNG. Freeport LNG shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

(D) In all other respects, the June 18, 2004 Order, as clarified in the September 20, 2004 Order, shall remain in full force and effect.

By the Commission.

(S E A L)

Linda Mitry,
Deputy Secretary.

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APPENDIX

ENVIRONMENTAL CONDITIONS

1. Freeport LNG 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 this Order. Freeport LNG must:

   a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);

   b. justify each modification relative to site-specific conditions;

   c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and

   d. Receive approval in writing from the Director of the Office of Energy Projects (OEP) before using that modification.

2. The Director of OEP has delegation authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the project. This authority shall allow:

   a. the modification of conditions of this Order; and

   b. the design and implementation of any additional measures deemed necessary (including stop work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from project construction and operation.

3. Prior to any construction, Freeport LNG shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors (EIs), and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs before becoming involved with construction and restoration activities.

4. The authorized facility locations shall be as shown in the EIS, as supplemented by filed alignment sheets, and shall include the staff's recommended facility

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locations. As soon as they are available, and before the start of construction, Freeport LNG shall file with the Secretary revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by this Order. All requests for modifications of environmental conditions of this Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

5. Freeport LNG shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that will be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP before construction in or near that area.

   This requirement does not apply to extra workspace allowed by the Upland Erosion Control; Revegetation; and Maintenance Plan or minor field realignments per landowner needs and requirements that do not affect other landowners or sensitive environmental areas such as wetlands.

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

   a. implementation of cultural resources mitigation measures;

   b. implementation of endangered, threatened, or special concern species mitigation measures;

   c. recommendations by state regulatory authorities; and

   d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.

6. At least 60 days before the start of construction of the pipeline Freeport LNG shall file an Implementation Plan for the pipeline with the Secretary for the review and written approval by the Director of OEP describing how Freeport LNG will

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implement the mitigation measures required by this Order. Freeport LNG must file revisions to the plan as schedules change. The plan shall identify:

a. how Freeport LNG 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 to the pipeline construction, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;

c. company personnel, including EIs and contractors, who will receive copies of the appropriate material;

d. what training and instructions Freeport LNG will give to all personnel involved with construction and restoration of the pipeline (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 Freeport LNG's organization having responsibility for compliance;

f. the procedures (including use of contract penalties) Freeport LNG will follow if noncompliance occurs; and

7. Freeport LNG shall re-inform landowners along the pipeline route of the environmental complaint resolution procedure.

8. Freeport LNG shall employ a team of environmental inspectors. The environmental inspectors shall be:

a. responsible for monitoring and ensuring compliance with all mitigation measures required by this Order and other grants, permits, certificates, or other authorizing documents;
b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 6 above) and any other authorizing document;
c. empowered to order correction of acts that violate the environmental conditions of this Order, and any other authorizing document;
d. a full-time position, separate from all other activity inspectors;

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e. responsible for documenting compliance with the environmental conditions of this Order, as well as any environmental conditions/permit requirements imposed by other Federal, state, or local agencies; and
f. responsible for maintaining status reports.

9. Freeport LNG shall file updated status reports prepared by the environmental inspector 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 environmental inspector(s) during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other Federal, state, or local agencies);
c. corrective actions implemented in response to all instances of noncompliance, and their cost;
d. the effectiveness of all corrective actions implemented;
e. a description of any landowner/resident complaints which may relate to compliance with the requirements of this Order, and the measures taken to satisfy their concerns; and
f. copies of any correspondence received by Freeport LNG from other Federal, state or local permitting agencies concerning instances of noncompliance, and Freeport LNG's response.

10. Freeport LNG must receive written authorization from the Director of OEP before commencing service of the project. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way is proceeding satisfactorily.

11. Within 30 days of placing the authorized facilities in service, Freeport LNG 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

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b. identifying which of the certificate conditions Freeport LNG has complied with or will comply with. This statement shall also identify any areas along the right-of-way where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.

12. Freeport LNG shall file with the Secretary a plan for the crossing of each waterbody if the directional drill is unsuccessful. This shall be a site-specific plan that includes scaled drawings identifying all areas that would be disturbed by construction. Freeport LNG shall file this plan concurrent with its application to the COE for a permit to construct using this plan. The Director of OEP must review and approve this plan in writing before construction of the crossing.

13. Freeport LNG shall prepare a detailed SPCC Plan for construction and operation of the pipeline. The plan shall address personnel training, detailed secondary containment plans for materials storage as well as equipment refueling, designated equipment refueling areas, an equipment list to be kept on site for spill countermeasures, equipment inspection measures and Best Management Practices that Freeport LNG plans to implement. The plan shall be filed with the Secretary, for review and written approval by the Director of OEP, prior to the start of construction.

14. Freeport LNG shall comply with the revegetation methods described in our Plan and Procedures. If Freeport LNG wishes to request a variance to the revegetation requirements, a plan shall be prepared addressing the amount and condition of seed available in the native hay, conditions for storage and handling of the hay, and application rates for applying the hay. Freeport LNG shall also include a plan for monitoring the long-term revegetation of areas reseeded using the native hay. This plan shall be filed with the Secretary for review and written approval by the Director of OEP prior to the start of construction.

15. If facilities are not constructed within 1 year from the date of issuance of the authorization, Freeport LNG shall consult with the appropriate offices of the FWS/NOAA Fisheries to update the species list and to determine if additional surveys are required.

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16. If any hazardous waste is uncovered during construction, Freeport LNG shall:

    a. stop work at the contaminated site, leaving contaminated equipment and materials within the contaminated area; and

    b. notify all required agencies (including FERC).