

146 FERC ¶ 61,234
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Acting Chairman;
Philip D. Moeller, John R. Norris,
and Tony Clark.

Freeport LNG Development, L.P.

Docket No. CP14-57-000

ORDER GRANTING AUTHORIZATION
UNDER SECTION 3 OF THE NATURAL GAS ACT

(Issued March 28, 2014)

1. On January 24, 2014, Freeport LNG Development, L.P. (Freeport LNG) filed an application seeking authorization under section 3 of the Natural Gas Act (NGA) to integrate and operate on a permanent basis a boil-off gas (BOG) refrigeration/chiller unit (BOG Chiller) at its liquefied natural gas (LNG) terminal on Quintana Island near Freeport, Texas. For the reasons discussed in this order, the Commission finds that the requested authorization is consistent with the public interest and grants the authorization subject to conditions discussed herein.

I. Background and Proposal

2. In 2004 the Commission authorized Freeport LNG to site, construct, and operate an LNG terminal on Quintana Island near Freeport, Texas, to import, store, and vaporize LNG.¹ The Phase I facilities were completed and put in service in July 2008. However, Freeport LNG recognized it would be receiving fewer LNG deliveries than previously-anticipated and, therefore, it could not ensure that the terminal's two storage tanks would continuously contain a volume of LNG (known as a "heel") sufficient to keep the tanks in a constant cryogenic state. To help relieve this problem, in December 2008 Freeport LNG proposed to construct a BOG liquefaction system which would allow Freeport LNG to capture BOG from the terminal's tanks and pipes and to convert this vapor back into the liquid phase for return to the tanks, thus ensuring a persistent heel. In 2009, the

¹ *Freeport LNG Dev., L.P.*, 107 FERC ¶ 61,278 (2004) (authorizing Phase I facilities).

Commission amended Freeport LNG's original authorization to authorize construction and operation of the BOG liquefaction system.²

3. Freeport LNG placed the BOG liquefaction system into service in November 2009. On April 19, 2013, Freeport LNG filed with the Commission an Emergency Notification Report, pursuant to 18 C.F.R. § 153.13 (2013), stating that Freeport LNG would install a new BOG Chiller for temporary use to offset the increased boil-off losses during the hot summer months. Operational problems with the BOG liquefaction system's compressor engines had resulted in a downtime of 25 percent. Freeport LNG asserted that it could no longer re-liquefy BOG as efficiently as needed to maintain a sufficient heel to ensure a constant cryogenic state.

4. The BOG Chiller consists of the following elements: one skid-mounted refrigeration unit; one skid with two gas/solution heat exchangers; and aboveground piping in 3-inch-diameter, 4-inch-diameter, and 6-inch-diameter sizes. One system of pipes circulates a water-glycol solution between the refrigeration unit and the two heat exchangers. Another system of pipes circulates BOG from the K-7 and K-3 compressor engines' discharge outlets through the two heat exchangers and then into the BOG liquefaction system before returning the BOG as liquid to the storage tanks.

5. Freeport LNG used the BOG Chiller for one season before decommissioning it in place at the end of October 2013. By pre-chilling the BOG from approximately 130 degrees Fahrenheit to 85 degrees Fahrenheit before the BOG entered the BOG liquefaction system, Freeport LNG was able to operate the BOG liquefaction system as a closed loop to maintain the storage tanks' cryogenic operating state without relying on new imports of LNG for this purpose.

6. Given the overwhelming effectiveness of the BOG Chiller, Freeport LNG now seeks section 3 authorization to integrate and operate the BOG Chiller on a permanent basis. Freeport LNG states that the BOG Chiller, if allowed to continue operating, would assist the existing BOG liquefaction system to re-liquefy approximately 5 to 7 million standard cubic feet of BOG per day and would obviate an alternative plan to add a fourth compressor engine to the existing BOG liquefaction system.

7. The reactivation of the BOG Chiller requires no additional construction and the BOG Chiller is located entirely within the previously authorized operational footprint of Freeport LNG's terminal on Quintana Island.

² *Freeport LNG Dev., L.P.* 127 FERC ¶ 61,105 (2009).

II. Notice, Interventions, and Comments

8. Public notice of Freeport LNG's application was published in the *Federal Register* on February 11, 2014 (79 Fed. Reg. 8183). No interventions or protests to the application were filed.

III. Discussion

A. Section 3 Authority

9. Because the proposed LNG terminal facilities will be used to import gas from foreign countries, the integration and operation of the proposed facilities require approval by the Commission under section 3 of the NGA.³

10. The Commission's authority over the construction and operation of LNG terminal facilities includes the authority to apply terms and conditions as necessary and appropriate to ensure that the proposed construction and operation is in the public interest.⁴ Section 3 provides that the Commission "shall issue such order on application" if it finds that the proposal "will not be inconsistent with the public interest."⁵

³ 15 U.S.C. § 717b (2012). The regulatory functions of section 3 of the NGA were transferred to the Secretary of Energy (DOE) in 1977 pursuant to section 301(b) of the Department of Energy Organization Act. 42 U.S.C. § 7151(b) (2012). In reference to regulating imports or exports of natural gas, the DOE 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. The DOE Secretary's current delegation of authority to the Commission relating to import and export facilities was renewed by the Secretary's Delegation Order No. 00-004.00A, effective May 16, 2006. Section 311 of the Energy Policy Act of 2005 amended section 3 of the NGA to clarify the Commission's exclusive authority to approve or deny an application for the siting, construction, expansion, and operation of LNG terminals. Pub. L. No. 109-58, § 311, 119 Stat. 594, 685-88 (2005).

⁴ *Id.* § 717b(e)(3)(A) (2012); *see, e.g. Distrigas Corp. v. FPC*, 495 F.2d 1057, 1063-64 (D.C. Cir.), *cert. denied*, 419 U.S. 834 (1974); *Dynegy LNG Prod. Terminal, L.P.*, 97 FERC ¶ 61,231 (2001).

⁵ *Id.* § 717b(a) (2012).

11. The Commission authorized the siting, construction, and operation of Freeport LNG's terminal on Quintana Island through a series of orders, and the facilities have been in operation since 2008.⁶ Freeport LNG's terminal is an integral component of Texas's energy infrastructure.⁷ The proposed BOG Chiller will increase Freeport LNG's operating reliability and reduce Freeport LNG's dependence on new deliveries of LNG to stabilize the terminal's storage system, augmenting Freeport LNG's ability to maintain safe and continuous cryogenic terminal operations.

12. Freeport LNG's proposal will not have an impact on landowners since the BOG Chiller has been installed and will be operated entirely within the existing footprint of the terminal and will be completely surrounded by other terminal facilities. Further, Freeport LNG's customers will not be adversely affected because the proposed BOG Chiller will ensure reliable operation of the LNG storage infrastructure. Therefore, we find that, subject to the conditions imposed in this order, Freeport LNG's proposal is not inconsistent with the public interest.

B. Environmental Analysis

13. To satisfy the requirements of the National Environmental Policy Act of 1969,⁸ our staff prepared an environmental assessment (EA) that was placed into the public record on March 12, 2014. The EA addressed potential impacts to various resources and considered alternatives.

14. Staff concluded that integration and operation of the BOG Chiller would have no effect on geology, water resources, wetlands, vegetation, wildlife, threatened or endangered species, air quality, noise, cultural resources, visual resources, or public safety. Integration and operation would require no construction and would cause no air emissions. Further, staff found that sufficient safeguards already exist in the facility's design to mitigate the potential for an incident to endanger the facility, its operating staff, or the off-site public.

15. We have reviewed the information and analysis contained in the record, including the EA, regarding the potential environmental effect of the BOG Chiller. We agree with the conclusion presented in the EA that if Freeport LNG integrates and operates the BOG

⁶ *Freeport LNG Dev., L.P.*, Docket No. CP03-75-000 (July 1, 2008) (delegated letter order granting request to commence service).

⁷ Freeport LNG delivers imported natural gas into the Texas intrastate market.

⁸ 42 U.S.C. §§ 4321-4370h (2012).

Chiller in accordance with its application and the staff's recommended measures (appendix), then approval of the project would not constitute a major federal action significantly affecting the quality of the human environment.

16. 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 LNG is authorized under section 3 of the NGA to integrate and operate the proposed BOG Chiller on a permanent basis, as more fully described in this order and in Freeport LNG's application, subject to the environmental conditions contained in the appendix to this order.

(B) The proposed facilities shall be integrated and made available for service within six months of the date of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix

Environmental Conditions for Freeport LNG Development, L.P. Docket No. CP14-57-000

1. Freeport LNG Development, L.P. (Freeport LNG) must report to FERC staff any significant non-scheduled events, including safety-related incidents (e.g., releases of LNG, condensate, refrigerant, or natural gas; fires; explosions; mechanical failures; unusual over pressurization; and major injuries) and security-related incidents (e.g., attempts to enter site, suspicious activities). In the event an abnormality is of significant magnitude to threaten public or employee safety, cause significant property damage, or interrupt service, Freeport LNG must notify FERC staff **immediately**, without unduly interfering with any necessary or appropriate emergency repair, alarm, or other emergency procedure. In all instances, notification must be made to FERC staff **within 24 hours**. This notification practice must be incorporated into the LNG facility's emergency plan. Examples of reportable hazardous-fluids-related incidents include:
 - a. fire;
 - b. explosion;
 - c. estimated property damage of \$50,000 or more;
 - d. death or personal injury necessitating in-patient hospitalization;
 - e. release of hazardous fluids for five minutes or more;
 - f. unintended movement or abnormal loading by environmental causes, such as an earthquake, landslide, or flood, that impairs the serviceability, structural integrity, or reliability of an LNG facility that contains, controls, or processes hazardous fluids;
 - g. any crack or other material defect that impairs the structural integrity or reliability of an LNG facility that contains, controls, or processes hazardous fluids;
 - h. any malfunction or operating error that causes the pressure of a pipeline or LNG facility that contains or processes hazardous fluids to rise above the sum of its maximum allowable operating pressure (or working pressure for LNG facilities) and the build-up allowed for operation of pressure-limiting or control devices;
 - i. a leak in an LNG facility that contains or processes hazardous fluids if such leak 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 a shutdown of operation of a pipeline or an LNG facility that contains or processes hazardous fluids;

- l. safety-related incidents to hazardous fluids vessels occurring at or en route to and from the LNG facility; or
- m. an event that is significant in the judgment of the operator and/or management even though it did not meet the above criteria or the guidelines set forth in an LNG facility's incident management plan.

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

2. The facilities installed as part of the Freeport LNG BOG refrigeration/chiller unit Project shall be subject to the regular FERC staff technical reviews and site inspections on at least an **annual** basis.
3. Freeport LNG shall report any design modifications and operating problems for the BOG refrigeration/chiller unit in the **semi-annual** operational reports filed with the Secretary for Freeport LNG's Quintana Island terminal.