

152 FERC ¶ 61,041
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;
Philip D. Moeller, Cheryl A. LaFleur,
Tony Clark, and Colette D. Honorable.

Floridian Natural Gas Storage Company, LLC

Docket No. CP13-541-000

ORDER AMENDING CERTIFICATE

(Issued July 16, 2015)

1. On September 4, 2013, Floridian Natural Gas Storage Company, LLC (Floridian) filed an application to amend its certificate of public convenience and necessity to construct and operate a liquefied natural gas (LNG) storage facility near Indiantown in Martin County, Florida (Storage Project).¹ Floridian seeks authorization to modify the previously authorized Phase 1 facilities by substituting a 1 billion cubic feet (Bcf) single-containment LNG storage tank for the previously authorized 4 Bcf full-containment tank and reducing the associated Phase 1 vaporization capacity.
2. For the reasons discussed herein, the Commission will grant the certificate amendment, subject to conditions.

¹ Floridian was first authorized to construct and operate its Storage Project by Commission order issued August 29, 2008, in Docket No. CP08-13-000. *Floridian Natural Gas Storage Co. (Floridian)*, 124 FERC ¶ 61,214 (2008) (2008 Certificate Order). On August 15, 2013, Floridian was granted an extension of time from August 29, 2013 until August 29, 2014 to complete construction and make the authorized facilities available for service. On August 11, 2014, Floridian was granted a second extension to complete construction by August 29, 2015.

I. Background and Proposal

3. As approved by the Commission in the 2008 Certificate Order, Floridian's Storage Project would include, upon completion of its two phases of construction, two LNG full-containment tanks with a total 8 Bcf of LNG storage capacity, vaporization equipment with sendout capacity of 800 million cubic feet per day (MMcf per day), and facilities capable of liquefying 100 MMcf of gas per day.² The Phase 1 facilities authorized by the 2008 Certificate Order include one 4 Bcf full-containment LNG storage tank, vaporization equipment with sendout capacity of 400 MMcf per day, and liquefaction equipment capable of liquefying 50 MMcf of gas per day.

4. Phase 1 of the Storage Project was also to include construction of two parallel pipelines, one 4-mile-long, 12-inch-diameter receiving pipeline and one 4-mile-long, 24-inch-diameter sendout pipeline. Both pipelines will be interconnected with the interstate natural gas transmission systems operated by Gulfstream Natural Gas System, L.L.C. (Gulfstream) and Florida Gas Transmission Company (FGT).

5. The authorized Phase 1 facilities also include a metering and regulating station near the interconnections with Gulfstream and FGT, a vapor handling system using five 1,700-horsepower (hp) reciprocating boil-off gas compressors and five 650-hp reciprocating tail gas compressors, and a two-bay LNG truck loading station with the capacity to load 40 MMcf of LNG per day.³ In addition, the authorized Phase 1 facilities include a natural gas liquids (NGLs) storage system.⁴

² The certificated site for Floridian's LNG storage project was designated by the U. S. Environmental Protection Agency (EPA) as a Superfund site due to soil and groundwater contamination. At the time the 2008 Certificate order was issued, soil remediation at the site had been completed, and EPA-supervised remediation for groundwater contamination was ongoing. *Floridian*, 124 FERC ¶ 61,214 at P 4.

³ The 2008 Certificate Order authorized Floridian's construction and operation of a truck-loading station only for use during emergency situations. However, the Commission amended Floridian's certificate on August 31, 2012, to authorize truck-loading operations during the normal course of business. *Floridian Natural Gas Storage Co., LLC (Floridian)*, 140 FERC ¶ 61,167 (2012).

⁴ The natural gas liquids (NGLs) facilities authorized by the 2008 Certificate Order would have had capacity to store up to 240,000 gallons of heavy hydrocarbons that could be loaded onto trucks for delivery. *Floridian*, 140 FERC ¶ 61,167 at P 2.

6. Floridian proposes the following modifications to its Phase 1 project components:
- LNG storage tank: Instead of the 4-Bcf full containment tank authorized by the 2008 Certificate Order, Floridian proposes to construct a 1-Bcf single containment tank with bottom withdrawal and external LNG pumps. The tank and pumps would be located within a mechanically stabilized earth containment berm;
 - LNG vaporization system: Floridian proposes to reduce the Phase 1 vaporization or sendout capacity from 400 MMcf per day to 100 MMcf per day;
 - Boil-off vapor handling system: Instead of the five 1,700-hp reciprocating boil-off compressors and five 650-hp reciprocating tail gas compressors authorized for Phase 1, Floridian proposes to install one 1,622 hp boil-off gas compressor and one 400 hp reciprocating tail gas compressor;⁵
 - LNG pumps: Instead of three internal 2,100 gallon-per-minute (gpm) primary LNG pumps and three 1,800 gpm external booster pumps, Floridian proposes one external 865 gpm pump to withdraw LNG for revaporization and injection into the sendout pipeline and one external 600 gpm LNG truck-loading pump.⁶
 - NGLs storage system: Floridian proposes to eliminate the natural gas liquids storage system authorized by the 2008 Certificate Order.
7. Based on the above-described changes to the Phase 1 facilities and operations, Floridian also proposes certain other minor changes to reduce the capacity of or otherwise modify some associated facilities.⁷
8. Floridian requests to scale back Phase 1 of its project due to a changed natural gas market. Floridian also states that its proposal will result in a shorter construction period and enable it to meet potential customers' volume and time requirements. Floridian

⁵ The description of Floridian's proposed modifications and equipment for Phase 1 operations reflect the clarifications provided by Floridian in data responses filed on November 27, 2013, and September 18, 2014.

⁶ Floridian states that that the truck-loading system will be capable of loading two trucks simultaneously at a nominal rate of 300 gpm each. The LNG sendout capacity by truck would be in addition to the 100 MMcf of revaporized LNG sendout capacity by pipeline.

⁷ See June 10, 2015 Environmental Assessment (EA) at 13.

states that over the past year it has made substantial progress obtaining customer commitments; it states it has agreed to the terms of a precedent agreement with a foundation customer and is in active negotiations of commercial arrangements with two additional customers, one of which is a Florida utility.⁸

II. Interventions and Comments

9. Notice of Floridian's application for amendment of its certificate authorization was published in the *Federal Register* on September 24, 2013 (78 Fed. Reg. 58,529). Florida Power & Light Company filed a timely motion to intervene. Timely, unopposed motions to intervene are granted by operation of Rule 214 of the Commission's Rules of Practice and Procedure.⁹

III. Discussion

10. In the 2008 Certificate Order, the Commission reviewed Floridian's proposed LNG Storage Project under its Certificate Policy Statement, which provides guidance as to how the Commission will evaluate proposals for new construction.¹⁰ The Certificate Policy Statement provides that a pipeline must financially support a project without relying on subsidization from its existing customers and establishes other criteria for determining whether there is a need for a proposed project and whether the proposed project will serve the public interest. The Policy Statement explains that in deciding whether to authorize the construction of the new pipeline facilities, the Commission balances the public benefits against the potential adverse impacts.

11. In its 2008 Certificate Order, the Commission found that as Floridian is a new storage company with no existing customers, there is no potential for existing customers to subsidize or otherwise be adversely affected by its LNG Storage Project. Further, no other pipelines or their customers had raised concerns, and the Commission therefore found no evidence that other pipelines and their customers would be adversely affected

⁸ Floridian's instant application does not propose any modifications to the Phase 2 facilities and operations approved by the 2008 Certificate Order, which would increase LNG storage capacity by 4 Bcf and sendout capacity by 400 MMcf per day.

⁹ 18 C.F.R. § 385.214(c) (2014).

¹⁰ *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999), *clarified*, 90 FERC ¶ 61,128, *further clarified*, 92 FERC ¶ 61,094 (2000) (Certificate Policy Statement).

by Floridian's project. Based on the proposed site for the project in an industrial area, the Commission found that construction and operation of the project should have no adverse effect on landowners and communities.¹¹ Floridian was authorized to provide project service at market-based rates.¹² These findings in the 2008 Certificate Order are not affected by Floridian's proposed facility modifications.¹³

12. Further, as discussed more fully below, and in the Environmental Assessment prepared for Floridian's requested certificate amendment, the proposed modifications to its project facilities and operations do not affect our finding in the 2008 Certificate Order that Floridian's LNG Storage Project is environmentally acceptable if constructed and operated in accordance with required mitigation measures.

13. Based on the findings of this order, the Commission reaffirms its finding that Floridian's Storage Project is in the public interest and required by the public convenience and necessity.

IV. Environmental Analysis

14. To satisfy the requirements of the National Environmental Policy Act (NEPA), Commission staff prepared an environmental assessment (EA) for Floridian's proposal to modify its LNG Storage Project's Phase 1 facilities and operations. The EA was prepared with the cooperation of the U.S. Department of Transportation (DOT), which has regulatory oversight of safety during operation once natural gas pipeline facilities are constructed and in operation.¹⁴

¹¹ *Floridian*, 124 FERC ¶ 61,214 at PP 17-23.

¹² *Id.* at PP 17-21.

¹³ The Commission's 2012 amendment order required Floridian to submit a revised market power study when it files tariff records to place Phase I of its Storage Project into service (*Floridian Natural Gas Storage Co., LLC*, 140 FERC ¶ 61,167, at P 16 (2012)). That requirement remains a continuing obligation.

¹⁴ The Commission has a *Memorandum of Understanding on Natural Gas Transportation Facilities* with the U.S. Department of Transportation, and Floridian will construct, operate, monitor, and maintain its LNG storage facility's receiving and sendout pipelines in accordance with DOT's federal pipeline safety regulations at 49 CFR Part 192, which are implemented by DOT's Pipeline and Hazardous Materials Safety Administration. DOT also has prescribed minimum federal safety standards for

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15. The analysis in the EA addresses geological resources, air quality, noise, reliability and safety, and alternatives. The EA was issued and placed in the public record in Docket No. CP13-541-000 on June 10, 2015.

16. For purposes of staff's review of Floridian's proposed changes, the EA incorporates by reference the Final Environmental Impact Statement (FEIS) for Floridian's Storage Project issued on July 11, 2008, in Docket No. CP08-13-000. The July 11, 2008 FEIS concluded that the proposed LNG Project, with the appropriate mitigation measures would have limited adverse environmental impact.

17. As recommended by the EA in this proceeding, Environmental Condition No. 3 in the Appendix to this order directs Floridian to file with the Secretary certification that it will comply with the still applicable environmental conditions of the 2008 Certificate Order authorizing its LNG Storage Project and the conditions of the August 31, 2012 Order in Docket No. CP12-100-000 that amended its certificate authorization to allow operation of its LNG truck-loading operations during the normal course of business. In view of Floridian's proposed modifications to the Phase 1 LNG storage tank, vaporization equipment and other facilities, we note that Environmental Conditions Nos. 42, 45, 47, and 68 in the Appendix to the 2008 Certificate Order will not be applicable to the amended Phase 1 facilities.¹⁵

LNG facilities codified in Title 49 CFR Part 193 which apply to the siting, design, construction, operation, maintenance, and security of LNG facilities. The National Fire Protection Association (NFPA) Standard 59A, "*Standard for the Production, Storage, and Handling of Liquefied Natural Gas*," is incorporated into these requirements by reference, with regulatory preemption in the event of a conflict. The DOT does not issue a permit or license but, as a cooperating agency, assists FERC staff in evaluating whether an applicant's proposed design would meet the DOT requirements. DOT staff has reviewed the Commission staff's analysis and provided comments regarding Floridian's compliance with DOT's LNG regulations. June 10, 2015 EA at 3.

¹⁵ Environmental Condition No. 42 related to the design of the LNG tank support plates and connections to piping. Since, as a single-containment tank, the Phase 1 tank will no longer have a concrete outer tank wall, and the plates and supports will not be attached or embedded in concrete this condition is no longer applicable. Environmental Condition No. 45 required that the final design include detailed drawings of the roof spill control system. However, since the modified Phase 1 tank will no longer have in-tank pumps, there will be no piping above the roof that can generate an LNG spill. Environmental Condition No. 47 required the final design to include a recycle line from the top of the sendout pump suction header to storage, but the modified Phase 1 design

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18. Based on the analysis in the EA, we conclude that if constructed and operated in accordance with Floridian's application and supplements, and in compliance with the environmental conditions in the Appendix to this order and environmental conditions of the 2008 Certificate Order in Docket No. CP08-13-000 and the August 31, 2012 Order in Docket No. CP12-100-000 as discussed above, our approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment.

19. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this certificate. The Commission encourages cooperation between interstate pipelines and local authorities. However, this does not mean that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.¹⁶

V. Conclusion

20. For the reasons discussed above, the Commission finds that changes to Floridian's Storage Project are required by the public convenience and necessity and authorizes Floridian to undertake construction and operation of the project facilities, subject to the discussion herein, all applicable environmental conditions, and the ordering paragraphs of this order.

has the pump discharge tied into a recycle line back to the LNG storage tank, thus this condition is no longer required. Finally, Environmental Condition No. 68 required that the final design include audible and visual warning devices located at buildings with instrument air service when nitrogen is supplied to the instrument air system. Phase 1 will not be backed up by nitrogen; therefore this condition no longer applies. While Environmental Conditions Nos. 42, 45, 47 and 68 no longer apply to Phase 1, they remain applicable to the Phase 2 facilities.

¹⁶ See, e.g., *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293 (1988); *National Fuel Gas Supply v. Public Service Commission*, 894 F.2d 571 (2d Cir. 1990); and *Iroquois Gas Transmission System, L.P., et al.*, 52 FERC ¶ 61,091 (1990) and 59 FERC ¶ 61,094 (1992).

21. At a hearing held on July 16, 2015, the Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application, as supplemented, and exhibits thereto, submitted in reference to the authorizations sought herein, and upon consideration of the record,

The Commission orders:

(A) The certificate issued to Floridian on August 29, 2008, in Docket No. CP08-13-000, as amended in the August 31, 2012 Order in Docket No. CP12-100-000, is further amended to allow Floridian to modify its Storage Project facilities and operations, as described more fully in this order and in the application, and subject to the conditions set forth herein.

(B) Floridian's certificate is further conditioned on the following:

- (1) Floridian's completing the authorized construction of all the proposed Storage Project facilities and making them available for service within five years of the issuance of this order pursuant to 157.20(b) of the Commission's regulations;
- (2) Floridian's compliance with all applicable Commission regulations under the Natural Gas Act, including, but not limited to, the general terms and conditions set forth in Parts 154, 157 and 284, and paragraphs (a), (c), (e), and (f) of section 157.20 of the regulations, excluding those provisions from which Floridian has been granted waiver; and
- (3) Floridian's compliance with the environmental conditions as set forth in the Appendix to this order.

(C) Floridian shall notify the Commission's environmental staff by telephone, e-mail, and/or facsimile of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Floridian. Floridian shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

(D) Floridian shall continue to comply with all the requirements and conditions set forth the in the 2008 Certificate Order and August 31, 2012 order amending its certificate.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix A

Environmental Conditions for Floridian's Storage Project

As recommended in the environmental assessment (EA), this authorization includes the following conditions:

1. Floridian shall follow the construction procedures and mitigation measures described in its application, supplemental filings (including responses to staff data requests), and as identified in this EA, unless modified by the Order. Floridian 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. For the liquefied natural gas (LNG) facility, the Director of OEP has delegated authority to take all steps necessary to ensure the protection of life, health, property, and the environment during construction and operation of the Floridian Amendment. This authority shall include:
 - a. stop-work authority and authority to cease operation; and
 - b. the design and implementation of any additional measures deemed necessary to assure continued compliance with the intent of the conditions of this Order.
3. **Prior to initial site preparation**, Floridian shall file with the Secretary for review and written approval by the Director of OEP, certification that the conditions from Orders 1 and 2 (Docket No. CP08-13-000 and CP12-100-000) will be incorporated in the design for Floridian's amendment.
4. Floridian must receive written authorization from the Director of OEP **prior to introducing hazardous fluids** into the Floridian's amendment facilities. Instrumentation and controls, hazard detection, hazard control, and security components/systems necessary for the safe introduction of such fluids shall be installed and functional.

5. Floridian shall file the following information, stamped and sealed by the professional engineer-of-record, with the Secretary:
 - a. site preparation drawings and specifications **prior to site preparation;**
 - b. LNG tank and foundation design drawings and calculations **prior to construction of the LNG tanks;**
 - c. LNG Liquefaction facility structures and foundation design drawings and calculations **prior to construction of foundations;** and
 - d. quality control procedures to be used for civil/structural design and construction **prior to construction of foundations.**

In addition, Floridian shall file in its Implementation Plan, the schedule for producing this information.

6. Floridian shall make all reasonable efforts to assure its predicted noise levels from the LNG facility (including proposed amendment facilities) are not exceeded at nearby noise sensitive areas and file noise surveys showing this with the Secretary **no later than 60 days after placing the LNG facility in service.** However, if the noise attributable to the operation of the LNG facility (including proposed amendment facilities) at full load exceeds a day-night sound level of 55 decibels on the A-weighted scale at any nearby noise sensitive areas, Floridian shall file a report on what changes are needed and shall install additional noise controls to meet the level **within 1 year of the in-service date.** Floridian 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.**

Conditions 7 through 28 shall apply to the Floridian Storage Project Amendment prior to initial site preparation; prior to construction of final design; prior to commissioning; prior to introduction of hazardous fluids; or prior to commencement of service. Information pertaining to the specific engineering conditions below shall be filed with the Secretary for review and written approval by the Director of OEP either: prior to initial site preparation; prior to construction of final design; prior to commissioning; prior to introduction of hazardous fluids; or prior to commencement of service, as indicated by each specific condition. Specific engineering, vulnerability, or detailed design information meeting the criteria specified in Order No. 683 (Docket No. RM06-24-000), including security information, shall be submitted as critical energy infrastructure information (CEII) pursuant to 18 CFR 388.112. See Critical Energy Infrastructure Information, Order No. 683, 71 Fed. Reg. 58,273 (October 3, 2006), FERC Stats. & Regs. 31,228 (2006). Information pertaining to items such as: offsite emergency response; procedures for public notification and evacuation; and

construction and operating reporting requirements, will be subject to public disclosure. All information shall be filed a minimum of 30 days before approval to proceed is requested.

7. **Prior to initial site preparation**, Floridian shall file the quality assurance and quality control procedures for construction activities.
8. **Prior to initial site preparation**, Floridian shall file an overall project schedule, which includes the proposed stages of the commissioning plan.
9. **Prior to initial site preparation**, Floridian shall file a plot plan of the final design showing all major equipment, structures, buildings, and impoundment systems.
10. The **final design** shall include change logs that list and explain any changes made from the Front-End Engineering Design provided in Floridian's application and filings. A list of all changes with an explanation for the design alteration shall be provided and all changes shall be clearly indicated on all diagrams and drawings.
11. The **final design** shall provide up-to-date Process Flow Diagrams (PFDs) with heat and material balances and Piping and Instrument Diagrams (P&IDs). The PFDs shall include heat and material balances. The P&IDs shall include the following information:
 - a. equipment tag number, name, size, duty, capacity, and design conditions;
 - b. equipment insulation type and thickness;
 - c. storage tank pipe penetration size and nozzle schedule;
 - d. piping with line number, piping class specification, size, and insulation type and thickness;
 - e. piping specification breaks and insulation limits;
 - f. all control and manual valves numbered;
 - g. valve high pressure side and cryogenic ball valve internal and external vent locations;
 - h. relief valves with set points; and
 - i. drawing revision number and date.
12. The **final design** shall include a list of all car-sealed and locked valves consistent with the P&IDs.
13. The **final design** shall provide an up-to-date complete equipment list, process and mechanical data sheets, and specifications.

14. The **final design** shall include the sizing basis and capacity for the vent stacks and the pressure and vacuum relief valves for major process equipment, vessels, and storage tanks.
15. The **final design** shall specify that for hazardous fluids, piping and piping nipples 2 inches or less in diameter are to be no less than schedule 160 for carbon steel and no less than schedule 80 for stainless steel, and are designed to withstand external loads, including vibrational loads in the vicinity of rotating equipment and operator live loads in areas accessible by operators.
16. The **final design** shall include details of how process seals or isolations installed at the interface between a flammable fluid system and an electrical conduit or wiring system.
17. The **final design** shall provide electrical area classification drawings.
18. The **final design** shall provide spill containment system drawings with dimensions and slopes of curbing, trenches, and impoundments.
19. The **final design** shall include a drawing showing the location of the emergency shutdown (ESD) buttons. ESD buttons shall be easily accessible, conspicuously labeled and located in an area which would be accessible during an emergency.
20. The **final design** shall include a plan for clean-out, dry-out, purging, and tightness testing. This plan shall address the requirements of the American Gas Association's Purging Principles and Practice required by 49 CFR 193, and shall provide justification if not using an inert or non-flammable gas for cleanout, dry-out, purging, and tightness testing.
21. The **final design** shall provide the procedures for pressure/leak tests which address the requirements of American Society of Mechanical Engineers (ASME) VIII and ASME B31.3.
22. Floridian shall certify that the **final design** is consistent with the information provided to the U.S. Department of Transportation (DOT) as described in the design spill determination letter dated July 18, 2014 (Accession Number 20140722-4005). In the event that any modifications to the design alters the candidate design spills on which the Title 49 CFR 193 siting analysis was based, Floridian shall consult with the DOT on any actions necessary to comply with Part 193.

23. **Prior to commissioning**, Floridian shall file plans and detailed procedures for: testing the integrity of onsite mechanical installation; functional tests; introduction of hazardous fluids; operational tests; and placing the equipment into service.
24. **Prior to commissioning**, Floridian shall label piping with fluid service and direction of flow in the field in addition to the pipe labeling requirements of the National Fire Protection Association 59A.
25. **Prior to commissioning**, Floridian shall maintain a detailed training log to demonstrate that operating staff has completed the required training.
26. **Prior to introduction of hazardous fluids**, Floridian shall complete a firewater pump acceptance test and firewater monitor and hydrant coverage test. The actual coverage area from each monitor and hydrant shall be shown on facility plot plan(s).
27. **Prior to introduction of hazardous fluids**, Floridian shall complete all pertinent tests (Factory Acceptance Tests, Site Acceptance Tests, Site Integration Tests) associated with the Distributed Control System and the Safety Instrumented System that demonstrates full functionality and operability of the system.
28. **Prior to commencement of service**, Floridian shall develop procedures for offsite contractors' responsibilities, restrictions, and limitations and for supervision of these contractors by Floridian staff.

In addition, Conditions 29 through 31 shall apply **throughout the life of the facility**:

29. The facility shall be subject to regular FERC staff technical reviews and site inspections on at least a **biennial basis** or more frequently as circumstances indicate. Prior to each FERC staff technical review and site inspection, Floridian shall respond to a specific data request, including information relating to possible design and operating conditions that may have been imposed by other agencies or organizations. Up-to-date detailed piping and instrumentation diagrams reflecting facility modifications and provision of other pertinent information not included in the semi-annual reports described below, including facility events that have taken place since the previously submitted semi-annual report, shall be submitted.
30. Semi-annual operational reports shall be filed with the Secretary to identify changes in facility design and operating conditions, abnormal operating experiences, activities (including trucking, quantity and composition of feed gas and trucked LNG, liquefied and vaporized quantities, boil-off/flash gas, etc.), plant modifications, including future plans and progress thereof. Abnormalities shall

include, but not be limited to: trucking problems, 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, hazardous fluids releases, fires involving hazardous fluids and/or from other sources, negative pressure (vacuum) within a storage tank and higher than predicted boil-off rates. Adverse weather conditions and the effect on the facility also shall be reported. Reports shall be submitted **within 45 days after each period ending June 30 and December 31**. In addition to the above items, a section entitled "Significant Plant Modifications Proposed for the Next 12 Months (dates)" also shall be included in the semi-annual operational reports. Such information would provide FERC staff with early notice of anticipated future construction/maintenance projects at the LNG facility.

31. Significant non-scheduled events, including safety-related incidents (e.g., hazardous fluid releases, fires, explosions, mechanical failures, unusual over pressurization, and major injuries) and security-related incidents (e.g., attempts to enter site, suspicious activities) shall be reported to FERC staff. In the event an abnormality is of significant magnitude to threaten public or employee safety, cause significant property damage, or interrupt service, notification shall be made **immediately**, without unduly interfering with any necessary or appropriate emergency repair, alarm, or other emergency procedure. In all instances, notification shall be made to FERC staff **within 24 hours**. This notification practice shall 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 facility that contains or processes hazardous fluids 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 a facility that contains or processes hazardous fluids 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 a facility that contains or processes hazardous fluids;
 - l. safety-related incidents to hazardous material transportations 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.