

September 4, 2013

Via Electronic Filing

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A
Washington, DC 20426

Re: Floridian Natural Gas Storage Company, LLC, Abbreviated Application to Amend
Certificate of Public Convenience and Necessity, Docket No. CP13-____-000

Dear Ms. Bose:

On behalf of our client, Floridian Natural Gas Storage Company, LLC (FGS), we submit for filing the enclosed Abbreviated Application to Amend Certificate of Public Convenience and Necessity of FGS (Application) made pursuant to Section 7(c) of the Natural Gas Act, 15 USC §717f, and Part 157 of the Commission's Regulations, 18 CFR Part 157. By this Application, FGS seeks to amend its Certificate of Public Convenience and Necessity authorizing the construction and operation of a new natural gas storage facility near Indiantown in Martin County, Florida (Certificate). The Certificate was originally issued by the Commission in Docket No. CP08-13-000 on August 29, 2008, *Floridian Natural Gas Storage Company, LLC*, 124 FERC ¶ 61,214 (2008), and then amended by the Commission in Docket No. CP12-100-000 on August 31, 2012, *Floridian Natural Gas Storage Company, LLC*, 140 FERC ¶ 61,167 (2012) (authorizing FGS to redeliver natural gas in its liquefied state to transporting vehicles provided by FGS's customers in the normal course of business). By letter order dated August 15, 2013, FGS was granted an extension until August 29, 2014 to construct and place in service its facilities. In the Application, FGS proposes to modify the authorized facilities by changing one 4 Bcf full containment storage tank to a 1 Bcf single containment tank and reducing the associated vaporization capacity proportionately from 400 MMcf per day to 100 MMcf per day.

The Application consists of the following materials:

- **Public Information:** The Public materials include (i) the Application, (ii) a Form of Federal Register Notice, (iii) certain supporting Exhibits that contain updated information, including the public portions of pertinent Exhibit F Resource Reports. The materials indicate internally where Critical Energy Infrastructure Information (CEII) and Privileged Information, respectively, have been removed.
- **Critical Energy Infrastructure Information:** Information in the Application that constitutes CEII and has been redacted from the Public Exhibit F Resource

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Reports is being submitted pursuant to the Commission's procedures contained in 18 CFR §388.112. This information is marked "Critical Energy Infrastructure Information -- Do Not Release" and includes Figures in Resource Reports 1 and 13, the Appendix in Resource Report 11 and the text of Resource Report 13.

CEII is specific engineering, vulnerability, or detailed design information about proposed or existing critical infrastructure that: relates details about the production, generation, transmission, or distribution of energy; could be useful to a person planning an attack on critical infrastructure; is exempt from mandatory disclosure under the Freedom of Information Act; and gives strategic information beyond the location of the critical infrastructure. The CEII materials do not simply give the general location of critical infrastructure, but also provide detailed engineering or design information about the proposed natural gas storage facility, indicate the specific location of critical features of the facility, and could be useful to a person planning an attack on critical infrastructure. In short, these materials labeled CEII satisfy the definition of "critical energy infrastructure information" set forth in 18 CFR §388.113(c)(1), i.e., they contain "specific engineering, vulnerability, or design information about proposed . . . critical infrastructure that: (1) Relates details about the . . . transportation . . . of energy; (2) Could be useful to a person in planning an attack on critical infrastructure; and (3) Is exempt from mandatory disclosure under the Freedom of Information Act, 5 U.S.C. §552 (2000)."

- **Privileged Information:** Certain information in the Application that should not be released has been redacted from the Public and CEII materials and is marked "Contains Privileged Information -- Do Not Release." This includes Appendix 1-A in Resource Report 1, List of Landowners, which contains personal information about individual landowners the release of which could be harmful to them. It also includes Figure 13.6-2 in Resource Report 13, a Piping & Instrumentation Drawing that was prepared by CB&I for FGS and contains confidential and proprietary information, which is commercially sensitive. Release of this information could cause substantial competitive harm and this information would be exempt from disclosure under FOIA.

FGS accordingly asks that the foregoing CEII and Privileged material, in its entirety, be placed in a non-Public file and treated as CEII and Privileged Information respectively pursuant to Commission Rule 388.112.

This filing is being made electronically. Consistent with the Commission's Filing Guide, two complete paper copies are being provided to the Office of Energy Projects (OEP Room 62-46 to the attention of Kandilarya Barakat) and one complete paper copy is being provided to the Office of General Counsel – Energy Projects (OGC-EP Room 101-56 to the attention of Jack Kendall).

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In accordance with Rules 2005 and 2011(c)(5) of the Commission's Rules of Practice and Procedure, 18 CFR §§385.2005, 385.2011(c)(5), the undersigned hereby states that she has full authority to make such filing, that she has read the filing and knows the contents of the paper copies and the electronic media, that the contents are true to the best of her knowledge and belief, and that the paper and electronic copies of this filing contain the same information.

Thank you for your attention to this matter. If you have any questions about this filing, please contact me at 202-420-4782 or my colleague Joan Darby at 202-420-2745.

Respectfully submitted,

/s/ Beth L. Webb

Beth L. Webb

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

In the Matter of

Floridian Natural Gas Storage Company, LLC

§
§
§
§

**Docket No. CP13-___-000
Expedited Action Requested**

**ABBREVIATED APPLICATION TO AMEND
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY**

**David W. Sharp
Floridian Natural Gas
Storage Company, LLC
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Houston, TX 77002
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September 4, 2013

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

In the Matter of	§	
	§	Docket No. CP13-___-000
	§	Expedited Action Requested
Floridian Natural Gas Storage Company, LLC	§	

**ABBREVIATED APPLICATION TO AMEND
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY**

Pursuant to Section 7(c) of the Natural Gas Act, as amended (NGA), 15 U.S.C. §717f(c), and Part 157 of the Regulations of the Federal Energy Regulatory Commission (FERC or Commission) promulgated thereunder, 18 CFR Part 157, Floridian Natural Gas Storage Company, LLC (FGS) files this abbreviated application to amend the Certificate of Public Convenience and Necessity issued by the Commission in Docket No. CP08-13-000 on August 29, 2008 (the Certificate),¹ authorizing FGS to construct, own and operate a new natural gas storage facility and ancillary facilities to be located on a 145-acre site (Site) near Indiantown in Martin County, Florida (the FGS Project), and amended by the Commission in Docket No. CP12-100-000 on August 31, 2012,² authorizing FGS – in the normal course of business – to redeliver gas in its liquefied state to transporting vehicles provided by its customers. FGS seeks an amendment authorizing a modification of the certificated facilities.

The Certificate authorizes two 4 billion cubic feet (Bcf) full containment storage tanks, systems for liquefaction, vapor handling and re-vaporization, NGL storage vessels, a

¹ *Floridian Natural Gas Storage Company, LLC*, 124 FERC ¶ 61,214 (2008). By an August 15, 2013 letter order, FGS was granted an extension of time until August 29, 2014 to construct and make the facilities available for service.

² *Floridian Natural Gas Storage Company, LLC*, 140 FERC ¶ 61,167 (2012).

metering and regulating station, two parallel four-mile pipelines for receipt and send out of gas and a truck loading station. FGS, which is authorized to construct the FGS Project in two phases, proposes to modify only the Phase 1 facilities, by changing one 4 Bcf full containment tank to a 1 Bcf single containment tank and reducing the associated vaporization capacity proportionately, from the original 400 million cubic feet per day (MMcf/d) per day to 100 MMcf/d.

FGS respectfully requests that the amended authorization sought in this Application be issued on or before November 30, 2013. FGS specifically requests that the amendment be approved by notational voting of the Commission. The basis for this request for expedition is set forth in Section X below.

In support of the requested amendment, FGS respectfully submits the following:

I.

INFORMATION REGARDING THE APPLICANT

There are no changes in the exact legal name, principal place of business or corporate organization of FGS. The current ownership of FGS is: 98% by Tesla Resources LLC, a Delaware limited liability company, and the remaining 2% by individual private investors.

Communications regarding this Application should be addressed to the following:

David W. Sharp*
Floridian Natural Gas
Storage Company, LLC
1000 Louisiana Street, Suite 4361
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* Designated to receive service in accordance with Section 385.2010 of FERC Regulations.

II.

DESCRIPTION OF THE CERTIFICATE AMENDMENT

The Certificate authorizes a new gas storage facility in Indiantown, Florida that is to be constructed in two phases. As authorized, each of Phase 1 and Phase 2 comprises the following facilities: one 4 Bcf full containment storage tank, associated vaporization or send out capacity of 400 MMcf/d, two liquefaction trains, each with a capacity of 25 MMcf/d, and two NGL storage vessels, each with a capacity of 60,000 gallons. In addition, Phase 1 includes a metering and regulating station that is connected to the existing regional gas infrastructure by two new parallel four-mile pipelines for receipt and send out of gas, as well as a two-bay truck loading station with the capacity to load 40 MMcf/d of liquefied natural gas (LNG). FGS seeks an amendment of its certificate to modify only the authorized Phase 1 facilities, by changing the 4 Bcf full containment tank to a 1 Bcf single containment tank and reducing the associated vaporization capacity proportionately from 400 MMcf/d to 100 MMcf/d.

As modified, Phase 1 will include the construction of one nominal 46,000 cubic meter (m³) single containment storage tank, liquefaction systems, vaporization systems, two approximately four-mile parallel pipelines to connect the facility with the existing interstate pipeline systems northwest of the Site operated by Florida Gas Transmission Company (FGT) and Gulfstream Natural Gas System, L.L.C. (Gulfstream), an M&R station and a two-bay dual truck loading station. The Phase 1 facilities will have a working gas storage capacity of 1 Bcf, a design send out capacity of 100 million standard cubic feet per day (MMscfd), and a design liquefaction rate of up to 50 MMscfd. The FGS Project will accept delivery of natural gas from customers that will deliver gas to the Project on one of the two pipelines, liquefy the gas using mixed refrigerant (MR), store the liquefied gas in Phase 1's nominal 46,000 m³ single containment tank at slightly above atmospheric pressure, and either vaporize the gas to send out

to one or both of the interstate pipelines or load gas in its liquefied state onto trucks for delivery for small scale applications.

The following are the major components of Phase 1 with the modifications shown in bold:

- Natural gas pipelines – one set of two approximately four-mile parallel pipelines to connect the facility with the interstate natural gas pipelines serving the region. The incoming line will be 12”, with a maximum allowable operating pressure (MAOP) of 1480 pounds per square inch gauge (psig), while the send out line will be 24”, with a MAOP of 1800.
- **Storage tank – one single containment storage tank having a networking capacity of 1 Bcf with bottom withdrawal and equipped with external tank canned LNG pumps. The initial 1 Bcf single containment tank will be double wall steel with an external Mechanically Stabilized Earth (MSE) berm.**
- Liquefaction system – two MR trains, sized to process up to 25 MMscfd each. Each associated centrifugal refrigeration compressor is rated at 13,000 horsepower (hp).
- Vapor handling system – a natural gas vapor handling system using reciprocating boil-off gas compressors **rated at 2350 hp each (in lieu of such compressors rated at 1700 hp each and coupled with reciprocating tail gas compressors rated at 650 hp each).**
- LNG truck loading system – An LNG truck loading system to facilitate customer transportation of LNG by truck for various small scale applications. The dual truck loading station will be capable of loading two trucks simultaneously at a nominal rate of 300 gallons per minute (gpm) each.
- Natural gas re-vaporization system – a natural gas re-vaporization system, **sized for 100 MMscfd** and consisting of a water-ethylene-glycol (WEG) loop with a shell and tube vaporizer.
- NGL ambient temperature storage – storage for heavy hydrocarbons removed from the feed gas stream during the liquefaction process, consisting of two 60,000 gallon horizontal storage vessels (blimps).
- M&R station – an M&R station on 2.75 acres near the interconnection points with Gulfstream and FGT that will include pressure regulation, redundant metering, and odorant facilities.

The facility will include a fire water system, service water utility systems, various hazard prevention, detection, and control systems, plus utilities including electric power distribution, instrument air distribution, and plant purge nitrogen distribution.

All facilities and components will be constructed in accordance with applicable regulations, including 49 Code of Federal Regulations (CFR) Part 193 and National Fire Protection Association (NFPA) Standard 59A for liquefied natural gas facilities and the codes and standards referenced therein.

Commercial operation of Phase 1 is scheduled for the fourth quarter of 2015 to meet the requirements of downstream customers; commercial operation of Phase 2 is anticipated to follow as soon thereafter as the market may require. Approximately 22 months are required for construction. Thus, to meet the planned in-service date, construction activities are scheduled to begin in February 2014 (subject to the receipt of Commission authorization).

III.

MARKET

FGS's proposed amendment is an adaptation to a changed natural gas market. Within a few months of the issuance of the Certificate, the deepest recession since the Great Depression hit the United States economy. Florida was particularly hard hit as unemployment quickly rose to over 11 percent,³ home values plummeted, the extremely high demand growth of the State's utilities halted and negative growth threatened. Development of infrastructure projects, including the FGS Project, stalled. Throughout this economic downturn, FGS remained committed to the market, continued to pursue the FGS Project, and maintained discussions with potential customers. Thus, FGS was well-positioned when, beginning in 2011, market

³ US Bureau of Labor Statistics, available at <http://data.bls.gov/timeseries/LASST12000003>.

conditions in Florida started to change – power demand began to grow, oil to gas switching picked up and infrastructure approached capacity.

As commercial interest revived, demand for natural gas in its liquefied state was manifest in both traditional natural gas storage markets and in a variety of emerging sectors. The latter include “small scale” applications such as using LNG as motor and marine fuel and for other agricultural and industrial needs. In addition, potential customers are planning to transport LNG in intermodal containers to Puerto Rico or to other nations to the extent such exports are authorized by the U.S. Department of Energy. Also driving customer interest in the FGS Project are traditional peak shaving storage customers that are interested in deliveries not only of re-vaporized LNG into pipelines, but also of LNG into trucks for delivery to on-site storage. The market demand that had developed for truck loading of LNG led to the amendment of FGS’s Certificate to authorize FGS to withdraw LNG from storage and deliver it to FGS’s customers in its liquefied state into trucks in the regular course of business, rather than only in emergency circumstances as originally authorized (see p. 1 and note 2 *supra*).

Over the past year, FGS has made substantial progress obtaining customer commitments and is now at the point of planning for the commencement of construction. FGS has agreed upon the terms of a precedent agreement with a foundation customer. That foundation customer is currently and very actively negotiating with multiple downstream customers, including those who will use LNG in Florida and those who plan to export LNG; several of the latter have identified the FGS facility as the source of the LNG to be exported in their filings with the U.S. Department of Energy Office of Fossil Energy. In fact, FGS’s foundation customer has indicated its interest in contracting for capacity supplemental to that reflected in the precedent agreement. Separately, FGS is in active negotiations of commercial arrangements with two additional customers, one of which is a Florida utility. FGS has provided

its form of precedent agreement to four more potential customers at their request. Beyond these prospective counterparties, FGS has received expressions of interest from multiple sectors in Florida, which FGS is confident will progress to commercial negotiations, in part due to the fact that the construction and operation of the smaller Phase 1 facilities will spur commitments from commercial parties that may have been hesitant to commit when construction was uncertain.

IV.

ENVIRONMENT

Because the proposed facility modifications reduce the size of the Phase 1 storage tank and its associated vaporization equipment, the Phase 1 facilities as modified will have no larger impacts than those of the originally certificated facilities. Thus, the proposed amendment of the Certificate is not expected to have any significant adverse impact on the environment.

FGS incorporates in this Application by reference the Environmental Resource Reports included in Exhibit F-1 to the original application for the Certificate filed in Docket No. CP08-13-000, noting that references to the 4 Bcf tank and 400 MMscfd of vaporization for Phase 1 should now be understood as references to the 1 Bcf tank and 100 MMscfd of vaporization. With this Application, FGS submits Resource Reports only to the extent relevant to the amendment of the Certificate. Accordingly, Exhibit F-1 to this Application includes discussions of the proposed facility modifications in Resource Reports 1, 11 and 13. With respect to the remainder of the Resource Reports, FGS submits the following:

Resource Report 2 Water Use and Quality

The modified facilities will be contained within the footprint of the originally proposed Project Site development and will not result in any additional impacts to waterbodies, watersheds or wetlands. The source of hydrotest water for the 1 Bcf tank will be the same as for the originally certificated 4 Bcf tank, but there will be a proportionate reduction in the quantity of water required (from 32 to 8 million gallons) and the duration of the hydrotest (from 5 to 1.5 weeks). As such, impacts described in the originally-submitted Resource Report 2 conservatively encompass the impacts of the modified facilities.

Resource Report 3 Fish, Vegetation and Wildlife

The modified facilities will be contained within the footprint of the originally proposed Project Site development and will not result in any increased impacts to fish, vegetation and wildlife resources. As such, impacts described in the originally-submitted Resource Report 3 encompass the impacts of the modified facilities.

Resource Report 4 Cultural Resources

The facilities as modified will be contained within the footprint of the originally proposed Project Site development. For this reason, no new cultural resource surveys are necessary.

Resource Report 5 Socioeconomics

The proposed facility modifications will reduce the construction workforce (from a peak of 450 to 300/ an average of 270 to 200) and the construction timetable (from 36 to 22 months). The permanent staff to operate the FGS Project as modified remains the same as originally estimated. Accordingly, impacts on Martin County population, housing, public services and traffic in the originally-submitted Resource Report 5 conservatively encompass the impacts of the proposed facility modifications. Any reduction in the positive impacts of the Project on local employment, expenditures for goods and services and associated sales tax revenue will be modest. The operation of the Project as modified will result in the payment of approximately \$1.1 million annually in property taxes.

Resource Report 6 Geological Resources

The modified facilities will be contained within the footprint of the originally proposed Project Site development and the dimensions of the Phase 1 tank will be reduced. As such, there are no new geological

resources or hazards to be addressed, and the impacts described in the originally-submitted Resource Report 6 conservatively encompass the impacts of and risks to the facilities as modified.

Resource Report 7 Soils

The modified facilities will be contained within the footprint of the originally proposed Project Site development and the dimensions of the Phase 1 tank will be reduced. As such, there are no new soils to be affected, and the impacts described in the originally-submitted Resource Report 7 conservatively encompass the impacts of the facilities as modified.

Resource Report 8 Land Use, Recreation and Aesthetics

The modified facilities will be contained within the footprint of the originally proposed Project Site development and the dimensions of the Phase 1 tank will be reduced. As such, impacts described in the originally-submitted Resource Report 8 conservatively encompass the impacts of the facilities as modified on land use, recreation and aesthetics.

Resource Report 9 Air Quality and Noise

The proposed facility modifications will result in a reduction in air emission generating equipment associated with the storage tank and the vaporization systems. Generated noise during both construction and operation will be equal to or less than that projected in the originally submitted Resource Report 9. As such, impacts described in the originally-submitted Resource Report 9 conservatively encompass the impacts of the facilities as modified on air and noise quality.

Resource Report 10 Alternatives

The proposed facility modifications do not change the alternatives analysis presented in the originally-submitted Resource Report 10.

Resource Report 12 PCB Contamination

The proposed facility modifications do not change the analysis regarding PCB Contamination presented in the originally-submitted Resource Report 12.

V.

PUBLIC CONVENIENCE AND NECESSITY

When issuing the Certificate in 2008, the Commission found that the FGS Project is in the public interest and required by the public convenience and necessity. So too it should find with respect to the proposed amendment, which is sought to meet the current requirements of the natural gas consumers in today's market. The Commission's criteria for making that determination, set forth in the *Policy Statement*,⁴ call for it to balance public benefits against potential adverse consequences.

As stated in Section IV of this Application, the proposed facility modifications will not have any significant adverse impacts on the environment. Nor will they result in any subsidization by existing customers or be in any manner detrimental to FGS customers, existing pipelines or their customers. FGS's modified facilities will enable FGS to meet immediate customer needs in a timely fashion, giving those and future customers additional operational flexibility. This will benefit FGS, its customers, and the markets those customers serve. In sum, these public benefits outweigh any adverse impact and thus the proposed amendment is needed, will serve the public interest and is required by the public convenience and necessity.

VI.

TARIFF

The proposed amendment does not require any changes to FGS's *pro forma* FERC Gas Tariff, most recently submitted as Exhibit P to the Application for Amendment of the Certificate filed in Docket No. CP12-100-000. Revisions to FGS's *pro forma* FERC Gas Tariff

⁴ *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999), *order clarifying Statement of Policy*, 90 FERC ¶ 61,128, *order further clarifying Statement of Policy*, 92 FERC ¶ 61,094 (2000) (*Policy Statement*).

required by the Commission's orders issuing and amending the Certificate and regulatory changes occurring subsequent to those orders will be made when proposed effective tariff sheets are filed prior to FGS's in-service date.

VII.

RELATED APPLICATIONS

FGS does not have any related applications pending before the Commission. FGS has obtained and maintained for the FGS Project a number of other permits and regulatory approvals from other Federal, State or other regulatory bodies as set forth in Table 1.5-1 in Resource Report 1. FGS is in the process of extending certain of these approvals as indicated in Table 1.5-1. FGS will update any of its approvals as required to reflect the proposed facility modifications. Except as set forth herein, to FGS's knowledge, no other application must or is to be filed by FGS, any FGS customer or any other person with any other Federal, State or other regulatory body related to the proposed facility modifications for the FGS Project.

VIII.

LANDOWNER NOTIFICATION

In accordance with the requirements of Section 157.6(d) of the FERC Regulations, FGS has identified all the landowners adjacent to the Site and landowners of residences within one-half mile of the Project facilities and will send formal written notification to these landowners after the filing of this Application.

IX.

ABBREVIATED APPLICATION AND WAIVERS

FGS is filing this Application in abbreviated form in accordance with Section 157.7 of the Commission's Regulations. FGS submits that the Application contains all information and supporting data necessary to explain fully the proposed amendment, its economic justification and its effects, that omissions from the Application are identified and justified and that the Application is otherwise in conformity with applicable requirements. FGS respectfully requests that the Commission grant the specific waivers of Commission Regulations requested in this Application and such additional waivers of its Regulations as may be necessary for the Commission to amend FGS's certificate as requested in this Application.

X.

REQUEST FOR EXPEDITED PROCESSING

FGS respectfully requests that the Commission expedite its processing of this Application and issue a final order approving the proposed certificate amendment no later than November 30, 2013. In this connection, FGS also specifically requests that the Commission act on FGS's Application by notational voting.

The basis for this request is that, for FGS to meet downstream customer requirements for service commencing in the fourth quarter of 2015, FGS must start construction of the modified Phase 1 facilities in February 2014. FGS anticipates that, provided FERC grants the request authorization by the end of November, it will be able to proceed to finance and begin construction of the FGS Project early in 2014, which will enable it to complete construction of, and commence commercial operation with, the modified Phase 1 facilities by the fourth quarter of 2015.

XI.

NOTICE

A Form of Notice suitable for publication in the Federal Register is attached hereto.

XII.

EXHIBITS

FGS requests waiver of the exhibit requirements under Section 157.14 of FERC Regulations because of the limited nature of this Application. In the context of the proposed certificate amendment, most exhibits are inapplicable. To the extent necessary, FGS incorporates by reference the exhibits filed with its October 31, 2007 application in FERC Docket No. CP08-13-000 and its March 30, 2012 application in Docket No. CP12-100-000 and submits only the following exhibits with this Application:

Exhibit C Company Officials

The attached Exhibit C reflects the current Managers of FGS.

Exhibit D Subsidiaries and Affiliation

The attached Exhibit D reflects the current ownership of FGS.

Exhibit F-I Environmental Report

Resource Reports relevant to the proposed certificate amendment are attached.

XIII.

CONCLUSION

For the reasons stated, FGS respectfully requests that:

1. The Commission amend the certificate of public convenience and necessity granted in the Order to authorize FGS to modify its Phase 1 facilities to construct a 1 Bcf tank and associated 100 MMscfd of vaporization, in lieu of a 4 Bcf tank and 400 MMscfd of vaporization;
2. The Commission waive Commission Regulations applicable to certificate applications to the extent necessary for the Commission to consider this Application and grant the requested certificate amendment;
3. The Commission issue a final order granting the authorizations requested herein no later than November 30, 2013;
4. This Application be disposed of in accordance with the shortened procedures set forth in Rules 801 and 802 of the Commission's Rules of Practice and Procedure. In that connection, FGS respectfully requests that the intermediate decision procedure be omitted and waives oral hearing and opportunity for filing exceptions to the decision of the Commission;
5. The Commission act on FGS's Application by notational voting; and

6. The Commission grant such other and further relief as may be proper and appropriate in the premises.

A Verification, as required by Section 7(d) of the NGA, 15 U.S.C. §717f(d), and Section 385.2005(b) of the Commission's Regulations, 18 CFR §385.2005(b), is attached to this Application.

Dated: September 4, 2013

Respectfully submitted,

/s/ Beth L. Webb

Beth L. Webb
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Counsel to Floridian Natural Gas Storage
Company, LLC

VERIFICATION

I, Beth L. Webb, being duly sworn on oath, hereby affirm that: I am a duly authorized representative of Floridian Natural Gas Storage Company, LLC (FGS); I have read and am familiar with the contents of the FGS's Abbreviated Application to Amend Certificate of Public Convenience and Necessity; and, the matters set forth in the Application are true and correct to the best of my knowledge, information and belief.

Beth L. Webb

Beth L. Webb

Sworn to and subscribed before me,
a Notary Public in and for the
District of Columbia on
this 4th day of September, 2013

Marina M. Lauziere

Notary Public

MARINA M. LAUZIÈRE
NOTARY PUBLIC DISTRICT OF COLUMBIA
My Commission Expires April 30, 2018

My commission expires:



**UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION**

In the Matter of	§	
	§	Docket No. CP13-____-000
	§	Expedited Action Requested
Floridian Natural Gas Storage Company, LLC	§	

**NOTICE OF ABBREVIATED APPLICATION TO AMEND
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY**

(September __, 2013)

Take notice that on September 4, 2013, Floridian Natural Gas Storage Company, LLC, located at 1000 Louisiana Street, Suite 4361, Houston, Texas 77002 (FGS), filed in Docket No. CP13-____-000 an application under Section 7 of the Natural Gas Act (NGA) and Part 157 of the regulations of the Federal Energy Regulatory Commission (Commission) to amend the certificate of public convenience and necessity authorizing the construction and operation of the Floridian Natural Gas Storage Project (FGS Project) that the Commission granted in Docket No. CP08-13-000 on August 29, 2008, amended in Docket No. CP12-100-000 on August 31, 2012 and extended in Docket No. CP08-13-000 on August 15, 2013. FGS seeks authorization to modify certain of its Phase 1 facilities by changing one 4 billion cubic feet (Bcf) full containment tank to a 1 Bcf single containment tank and reducing the associated vaporization capacity proportionately, from the original 400 million cubic feet per day (MMcf/d) per day to 100 MMcf/d.

Any questions regarding this application may be directed to Joan Darby by mail at Dickstein Shapiro LLP, 1825 Eye Street NW, Washington, DC 20006, by telephone at 202-420-2200, or by email at darbyj@dicksteinshapiro.com.

This filing is accessible on-line at <http://www.ferc.gov>, using the “eLibrary” link and is available for review in the Commission’s Public Reference Room in Washington, D.C. There is an “eSubscription” link on the web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please email FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission’s Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed on or before the comment date. Anyone filing a motion to intervene or protest must serve a copy of that document on the FGS. On or before the

comment date, it is not necessary to serve motions to intervene or protests on persons other than FGS.

The Commission strongly encourages electronic filings of comments, protests, and interventions via the internet in lieu of paper. See 18 CFR 385.2001(a) (1) (iii) and the instructions on the Commission's web site (www.ferc.gov) under the "e-Filing" link. Persons unable to file electronically should submit an original and 5 copies of the comment, protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE, Washington, D.C. 20426.

Comment Date: 5:00 pm Eastern Time on _____.

Kimberly D. Bose

Secretary

EXHIBIT C
COMPANY OFFICIALS

EXHIBIT C
COMPANY OFFICIALS

The names and addresses of the Managers of Floridian Natural Gas Storage Company, LLC are:

David W. Sharp
1000 Louisiana Street, Suite 4361
Houston, TX 77002

James A. Whalen
1000 Louisiana Street, Suite 4300
Houston, TX 77002

J. Bradley Williams
1000 Louisiana Street, Suite 4361
Houston, TX 77002

Roy Johnson
Tesla Resources LLC
1000 Louisiana Street, Suite 4300
Houston, TX 77002

Rene Joyce
Tesla Resources LLC
1000 Louisiana Street, Suite 4300
Houston, TX 77002

EXHIBIT D

SUBSIDIARIES AND AFFILIATION

EXHIBIT D

SUBSIDIARIES AND AFFILIATION

Neither Floridian Natural Gas Storage Company, LLC or any of its Managers, directly or indirectly, owns, controls or holds with power to vote, ten percent or more of the outstanding voting securities of any other person or organized group of persons engaged in production, transportation, distribution or sale of natural gas, or of any persons engaged in the construction or financing of such enterprises or operations.

Tesla Resources LLC, a Delaware limited liability company, owns 98% of FGS. The remaining 2% of FGS is held by individual private investors.

EXHIBIT F-I
ENVIRONMENTAL REPORT

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**FLORIDIAN NATURAL GAS
STORAGE PROJECT**

CERTIFICATE AMENDMENT

DOCKET NO. CP13-___-000

RESOURCE REPORT 1



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APPENDICES

Appendix 1-A	List of Landowners (Privileged)
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LIST OF ACRONYMS

API	American Petroleum Institute
Bcf	Billion Cubic Feet
CFR	Code of Federal Regulations
DEGADIS	Dense Gas Dispersion Model
DOT	United States Department of Transportation
°F	Degrees Fahrenheit
FERC	Federal Energy Regulatory Commission
FGS	Floridian Natural Gas Storage Company, LLC
FGT	Florida Gas Transmission Company
gpm	Gallons per Minute
hp	Horsepower
kV	Kilovolt
LNG	Liquefied Natural Gas
m ³	Cubic Meter
M&R	Metering and Regulating
MAOP	Maximum Allowable Operating Pressure
MMBtu/hr	Million British Thermal Units per Hour
MMscfd	Million Standard Cubic Feet per Day
MR	Mixed Refrigerant
MSE	Mechanically Stabilized Earth
NFPA	National Fire Protection Association
NGL	Natural Gas Liquids
PHMSA	Pipeline and Hazardous Material Safety Administration
psig	Pounds per Square Inch Gauge
VAC	Volts Alternating Current
WEG	Water Ethylene Glycol

1.1 INTRODUCTION

Floridian Natural Gas Storage Company, LLC (FGS) holds a Certificate of Public Convenience and Necessity issued on August 29, 2008 and extended on August 15, 2013 by the Federal Energy Regulatory Commission (FERC or the Commission) in Docket No. CP08-13-000 (Certificate). The Certificate authorizes FGS to construct, own and operate a new natural gas storage facility at the site of the former Florida Steel manufacturing facility (Site) about two miles north of Indiantown in Martin County, Florida (the FGS Project or Project). FGS seeks to amend its authorization. The proposed amendment would modify FGS's certificated Phase 1 facilities to build a 1 billion cubic feet (Bcf) tank and associated 100 million standard cubic feet per day (MMscfd) of vaporization, in lieu of a 4 Bcf tank and 400 MMscfd of vaporization, as described herein. These facilities as modified will have no larger impacts than those of the originally certificated facilities.

In connection with its Abbreviated Application to Amend Certificate of Public Convenience and Necessity (Amendment Application), FGS has prepared Resource Reports relevant to the proposed amendment. This Resource Report 1 describes the proposed modifications to the facilities, the current construction schedule, any amendment-related modifications to construction procedures and safety systems, and the current status of relevant permits.

1.2 CERTIFICATE AMENDMENT DESCRIPTION

1.2.1 Reasons for Proposed Facility Modifications

FGS's proposed amendment is an adaptation to a changed natural gas market that is developing as the United States economy is recovering from the deepest recession since the Great Depression. When commercial interest in infrastructure projects, including the FGS Project, began to revive in 2011, demand for natural gas in its liquefied state was manifest in both traditional natural gas storage markets and in a variety of emerging sectors. The latter include "small scale" applications such as using liquefied natural gas (LNG) as motor and marine fuel and for other agricultural and industrial needs. These also include uses by traditional peak shaving storage customers that are interested in deliveries not only of re-vaporized LNG into pipelines, but also of LNG into trucks for delivery to on-site storage, as well as by downstream customers that plan to transport LNG in intermodal containers to off-shore locations. Market demand for truck loading of LNG led FGS to propose an amendment of its Certificate. On August 31, 2012, FERC issued an Order in Docket No. CP12-100-000

authorizing FGS to withdraw LNG from storage and deliver it to FGS's customers in its liquefied state into trucks in the regular course of business, rather than only in emergency circumstances as originally authorized.

The modifications to the Phase 1 facilities that FGS is now proposing have arisen because the customers making commitments to FGS are involved in the small scale applications and they require service in an earlier time frame. The smaller modified Phase 1 facilities, with a shorter construction period, can meet these customers' volume and time requirements. FGS remains in active negotiations of commercial arrangements with additional customers, and has received expressions of interest from multiple sectors in Florida. FGS is confident that these prospects will progress to firm commercial arrangements, particularly because the construction and operation of the smaller Phase 1 facilities will spur commitments from commercial parties that may have been hesitant to commit while construction was uncertain.

Commercial operation of Phase 1 is scheduled for the fourth quarter of 2015 to meet the requirements of downstream customers. Commercial operation of Phase 2 is anticipated to follow as soon thereafter as the market may require.

1.2.2 Proposed Modifications of Project Facilities

The Certificate authorizes a new gas storage facility in Indiantown, Florida that is to be constructed in two phases. As authorized, each of Phase 1 and Phase 2 comprises the following facilities: one 4 Bcf full containment storage tank; associated vaporization or send out capacity of 400 MMscfd; two liquefaction trains, each with a capacity of 25 MMscfd; and two natural gas liquids (NGL) storage vessels, each with a capacity of 60,000 gallons. In addition, Phase 1 includes a metering and regulating (M&R) station that is connected to the existing regional gas pipeline infrastructure by two new parallel four-mile pipelines for receipt and send out of gas, as well as a two-bay truck loading station with the capacity to load 40 MMscfd. FGS seeks an amendment of the Certificate that modifies only the authorized Phase 1 facilities, by changing the 4 Bcf full containment tank to a 1 Bcf single containment tank and reducing the associated vaporization capacity proportionately from 400 MMscfd to 100 MMscfd. As modified, Phase 1 will include the construction of one nominal 46,000 cubic meter (m³) single containment storage tank, liquefaction systems, vaporization systems, two approximately four-mile parallel pipelines to connect the facility with the existing interstate pipeline systems northwest of the Site operated by Florida Gas Transmission Company (FGT) and

Gulfstream Natural Gas System, L.L.C. (Gulfstream), an M&R station and a two-bay dual truck loading station. The Phase 1 facilities will have a working gas storage capacity of 1 Bcf, a design send out capacity of 100 MMscfd, and a design liquefaction rate of up to 50 MMscfd. The FGS Project will accept delivery of natural gas from customers that will deliver gas to the Project on one of the two pipelines, liquefy the gas using mixed refrigerant (MR), store the liquefied gas in Phase 1's nominal 46,000 m³ single containment tank at slightly above atmospheric pressure, and either vaporize the gas to send out to one or both of the interstate pipelines or load gas in its liquefied state onto trucks for delivery for small scale applications.

The Phase 1 FERC jurisdictional facilities, as modified, are shown on the Site Plan in Figure 1.2-1 and are described in detail below. A block flow diagram showing the general operation of these facilities is shown in Figure 1.2-2. The following are the major components of Phase 1 with the modifications shown in bold:

- Natural gas pipelines – one set of two approximately four-mile parallel pipelines to connect the facility with the interstate natural gas pipelines serving the region. The incoming line will be 12”, with a maximum allowable operating pressure (MAOP) of 1480 pounds per square inch gauge (psig), while the send out line will be 24”, with a MAOP of 1800.
- Storage tank – **one single containment storage tank having a net working capacity of 1 Bcf with bottom withdrawal and equipped with external tank canned LNG pumps. The initial 1 Bcf single containment tank will be double wall steel with an external Mechanically Stabilized Earth (MSE) berm.**
- Liquefaction system – two MR trains, sized to process up to 25 MMscfd each. Each associated centrifugal refrigeration compressor is rated at 13,000 horsepower (hp).
- Vapor handling system – a natural gas vapor handling system using reciprocating boil-off gas compressors **rated at 2350 hp each (in lieu of such compressors rated at 1700 hp each and coupled with reciprocating tail gas compressors rated at 650 hp each).**
- LNG truck loading system – An LNG truck loading system to facilitate customer transportation of LNG by truck for various small scale applications. The dual truck loading station will be capable of loading two trucks simultaneously at a nominal rate of 300 gallons per minute (gpm) each.
- Natural gas re-vaporization system – a natural gas re-vaporization system, **sized for 100 MMscfd** and consisting of a water-ethylene-glycol (WEG) loop with a shell and tube vaporizer.

- NGL ambient temperature storage – storage for heavy hydrocarbons removed from the feed gas stream during the liquefaction process, consisting of two 60,000 gallon horizontal storage vessels (blimps).
- M&R station – an M&R station on 2.75 acres near the interconnection points with Gulfstream and FGT that will include pressure regulation, redundant metering, and odorant facilities.

The facility will include a fire water system, service water utility systems, various hazard prevention, detection, and control systems, plus utilities including electric power distribution, instrument air distribution, and plant purge nitrogen distribution.

All facilities and components will be constructed in accordance with applicable regulations, including 49 Code of Federal Regulations (CFR) Part 193 and National Fire Protection Association (NFPA) Standard 59A for liquefied natural gas facilities and the codes and standards referenced therein.

1.2.2.1 Natural Gas Storage Tank

A single containment storage tank, designed to store a nominal 46,000 m³ (288,000 barrels) of liquefied natural gas at a temperature of -260 degrees Fahrenheit (°F) and a normal pressure of one to one and a half psig, will be constructed during Phase 1 of the Project. The Phase 1 single containment 1 Bcf storage tank will have a primary nine percent nickel steel inner container and a carbon steel outer wall (the shell) and domed roof and an aluminum insulated support deck suspended from the outer roof over the inner container (Figure 1.2-3). The inner container contains the cryogenic liquid under normal operating conditions. The outer carbon steel shell and roof (together, the outer container) are the pressure retaining boundary for vapor within the tank. The diameter of the outer shell will be approximately 186 feet and the height of the top of the dome is approximately 100 feet above grade. The natural gas tank ringwall foundation will set on grade and include an electric heating system to prevent freezing of the earth below the tank. The space between the inner container and the outer wall will be insulated with a fiberglass resilient blanket and expanded perlite that will be compacted to reduce long term settling. This insulation will allow the liquefied natural gas to be stored at a temperature of -260 °F while maintaining the outer container at near ambient temperature. The insulation under the inner container's bottom will be a cellular glass, load-bearing insulation. Most piping into and out of the Phase 1 single containment tank will enter and exit from the top of the inner tank through the annular space between the inner and outer tanks. However, the

main tank withdrawal to the LNG pumps will be through the tank bottom. The Phase 1 tank will have an external MSE berm as secondary liquid containment.

1.2.2.2 LNG Truck Loading System

Using the dual truck loading station, liquefied natural gas will be loaded onto trucks at a nominal rate of 300 gpm for each truck for transport of the LNG to remote locations. LNG will be pumped from the Phase 1 single containment storage tank through the use of dedicated truck loading pumps. The truck loading pumps are each 100% capacity for loading two trucks simultaneously and are located within the reinforced earthen berm of the tank.

1.2.2.3 Vaporization System

The liquefied natural gas from the storage tank must be pressurized and vaporized so that natural gas can be sent out via the natural gas pipeline system. The single containment storage tank will have bottom withdrawal with a single external tank LNG pump to deliver the liquefied natural gas from the storage tank to a single shell and tube LNG vaporizer that will be used to vaporize the liquefied natural gas. The vaporizer will be capable of vaporizing 100 MMscfd of natural gas back to the pipeline.

Heat for the vaporization will be supplied from the burning of natural gas to heat WEG that will be circulated through the shell side of the vaporizer. One WEG heater, rated for a heat output duty of 83 million British thermal units per hour (MMBtu/hr), will heat the WEG to 200 °F. After leaving the vaporizer, the high-pressure gas will pass through the send out pipeline to the M&R station and then into the FGT and Gulfstream pipelines.

1.2.2.4 Other Facility Components

Hot Water Ethylene Glycol System

Hot WEG will be used as an intermediate heat transfer fluid to supply heat for the shell and tube vaporizer and the fuel gas heat exchanger. It will be a closed circulating system where the WEG will be pumped from the water bath in the fire-tube heater prior to delivery to the vaporizer and fuel gas heat exchanger. The hot WEG system consists of a direct fuel-gas fire tube hot WEG heater, an

expansion drum, and a hot WEG circulation pump. Makeup to the closed loop water system will be supplied, as necessary, and will be purchased and delivered by trucks from local suppliers.

Fuel Gas System

Fuel gas will be received from the facility inlet or send out pipelines. The on-site metered fuel gas will be distributed within the facility to the WEG heaters and other natural gas fired equipment.

Electrical System

The Project will be supplied power through the existing on-site Florida Power & Light Company 230 kilovolt (kV) substation main power transformers and 13.8 kV and 4160 VAC switchgear. The anticipated peak operating load of Phase 1 of the Project will be approximately 18 MW.

1.3 CONSTRUCTION SCHEDULE AND PROCEDURES

The current construction schedule and modifications to the construction procedures in light of the proposed amendment are described below.

1.3.1 Schedule

To meet customer requirements for service in the fourth quarter of 2015, construction activities for Phase 1 of the Project are expected to begin in February 2014. Construction of the storage tank is expected to take approximately 22 months. The principle stages are: (1) tank foundation; (2) carbon steel outer tank shell and dome roof; (3) bottom insulation, 9% nickel inner tank bottom and shell, and roof platform; (4) tank shell and suspended deck insulation, and testing; and (5) painting and nitrogen purge. Progression from the second to the third stage will be evidenced by the raising of the outer dome roof. The closure of the suspended deck annulus plates verifies the inner tank is complete. Installation of the deck and annular space insulation signal the completion of the inner tank system clearing the way for testing, painting and ultimately nitrogen purge in months 21 and 22.

1.3.2 Storage Tank Construction Sequence

Construction of the storage tank constitutes the most schedule sensitive element in the Project. The description below provides a brief outline of the construction procedures for the storage tank. Some

on-site fabrication may occur depending on the tank vendor. For example, some tank erectors will have some off-site fabrication, such as sections of the inner plate and the steel, and will have these items delivered by train or truck. Large items, such as tank shell plates, will be delivered to the Site.

1.3.2.1 Storage Tank Foundation

The construction of the Phase 1 single containment storage tank below the top of the concrete ringwall foundation consists of the following activities:

- Placement of surcharge soil for preloading of the area;
- Removal of surcharge material after duration of preload;
- Removal of the top layer of soil. The depth of the soil to be removed is a function of the engineered improved soil;
- Treatment of the surface layer of the soil by soil replacement or other methods suitable to the Site conditions;
- Installation of binding concrete for the concrete ringwall foundation;
- Installation of the formwork for the concrete ringwall foundation;
- Installation of reinforcement steel;
- Installation of foundation heating conduit embeds;
- Installation of settlement monitoring system and anchor strap assemblies; and
- Pouring of foundation concrete.

1.3.2.2 Storage Tank above the Base Foundation

The construction of the Phase 1 single containment storage tank above the top of the concrete ringwall foundation consists of the following activities:

- Construct the steel tank bottom on top of the concrete ringwall foundation.
- Construction of the outer carbon steel container wall (the shell) will follow the completion of the tank bottom. A temporary construction opening will be built into the outer shell during the initial shell installation to permit access into the shell during construction of the inner container.

- During the construction of the outer shell, construction of the steel dome roof and suspended deck will be undertaken on temporary supports inside the outer shell. The suspended deck and dome roof will be raised into final position during the roof air raising operation. Construction openings will be temporarily closed during the roof air raise operation.
- Prior to roof air raise, the steel dome roof compression ring will be attached to the outer shell.
- After roof air raise and after the dome roof is secured to the compression ring, installation of all roof nozzles and penetrations will be undertaken. Concurrent with this activity, work will commence on the inner container, initiated with installation of lights, air circulation and ventilation equipment.
- Internal work will include placement of concrete leveling screeds, base insulation and concrete layers, etc.
- Installation of the nine percent nickel steel inner container annular and bottom plates will be undertaken on completion of the upper leveling course screed.
- After installation of the inner container annular plates, work will commence on erection of the inner container shell with provision for a temporary opening into the inner container at the same location as the outer shell opening.
- The tank internal accessories such as bottom and top fill, instrument wells, and purge and cool-down piping will be installed. Roof platforms, walkways, and piping will be installed. The construction opening door sheet in the inner container will be installed and closed. Hydrotesting of the tank will follow.
- External attachments such as structural, platform and pipe support installation will then be completed.
- After completion of the tank internal piping, the temporary opening in the outer shell will again be closed. The inner container will be filled with water to the required hydrostatic test height. Settlement monitoring will be conducted throughout the period of water filling, testing and emptying. The external tank will be pneumatically tested per American Petroleum Institute (API) 620 procedures.
- Process piping from tank top to grade will be installed concurrent with construction of the nine percent nickel steel inner container.
- Following a successful inner container hydrotest, the tank will be washed down and cleaned. The resilient blanket will then be installed on the outside of the inner container shell, followed by installation of the instrumentation inside the tank and annular space. The temporary construction opening will then be closed permanently. Installation of insulation systems will commence. Installation of the perlite requires the tank to be completely dry.

- The tank insulation systems will then be completed. Perlite insulation will be expanded and installed using vibration into the tank annular space. The suspended deck blanket insulation will be installed along with completion of external piping insulation.
- After completion of all insulation system installations, the tank will be visually inspected and cleaned. The tank will then be closed and purged with nitrogen to a positive gauge pressure.

At this point in the construction process, the Phase 1 tank will be ready for purge and cool-down.

1.3.3 Testing

1.3.3.1 *Hydrotesting*

The inner container of the storage tank will be hydraulically tested (hydrotested) in accordance with the requirements of API 620. The hydrotest water will be supplied from the St. Lucie Canal. The water will be pumped from the extraction point using either electrically or engine driven pumps suitably sized to achieve the required transfer rate.

In advance of filling the tank, the hydrotest water source will be tested to ensure that the water will meet all applicable code requirements. No biocides or other water additives will be used. Water will be introduced into the inner container through a manhole in the bottom of the tank at a rate that will not exceed the limitations specified in API 620. The duration that the water remains in the tank will be strictly limited and controlled, therefore it is not expected that any contamination or discoloration will be present on discharge.

The quantity of water required for hydrotesting the Phase 1 tank is estimated to be approximately 8 million gallons. The total duration of the hydrotest from start of filling to completion of emptying is expected to be approximately 1.5 weeks.

The temporary piping used to initially fill the tank will be used to return the test water to the supply location. The rate of discharge is expected to be approximately 2,100,000 gallons per 24 hours over a period of 4 days for the Phase 1 tank. The pumping operation will have substantially lower rates when removing the final amounts of water from the tank bottoms. The hydrotest water will be sampled and tested for compliance with water quality standards. If treatment is found to be required, treatment procedures will be developed prior to discharge.

1.3.3.2 *Pneumatic Testing*

A pneumatic test of the storage tank outer container will be performed in accordance with API 620. The outer container will be held at 1.25 times the design pressure for one hour.

1.4 SAFETY CONTROLS

The Project facilities will be designed, constructed, operated, and maintained in accordance with United States Department of Transportation (DOT) Federal Safety Standards for Liquefied Natural Gas Facilities, 49 CFR Part 193. The facilities will also meet the NFPA 59A LNG Standards. Safety controls are addressed in more detail in Resource Report 11.

1.4.1 Spill Containment

The Project's spill containment systems will be designed and constructed to comply with DOT regulations 49 CFR Part 193 Sections 193.2149 through 193.2185. These regulations require that each container of, and each transfer system for, liquefied natural gas be provided with a means of secondary containment which has been sized to hold the quantity of liquefied natural gas that could be released as a result of a design spill as defined in NFPA 59A for the area and equipment.

A spill containment system will be provided consisting of a system of concrete transmission troughs which will direct any spillage, whether from the storage tank or from the liquefaction-to-tank or the tank-to-vaporization transfer systems, to spill impoundment sumps. The transmission troughs will be approximately three feet wide by two feet deep and will be as long as necessary to direct any spill to the spill containment sumps. The usable volume of the sump will provide for containment of a 10-minute spill from a single full-bore pipe rupture (one hour in the case of the storage tank bottom withdrawal) that will produce the highest release rate in accordance with NFPA requirements as specified by the design spill criteria.

The facility stormwater drainage system will consist of low lift stations for the collection and transfer of stormwater runoff within the secondary impoundment berm around the storage tank, plus a system of swales, ditches, and culverts for collection of clean stormwater from areas outside of the bermed area.

The Phase 1 storage tank MSE berm will be designed to contain 110 percent of the contents of the nine percent nickel steel inner container.

1.4.2 Thermal Exclusion and Vapor Dispersion Zones

Thermal radiation exclusion zones were calculated using the LNG FIRE III computer model as required by 49 CFR §193.2057(a). In these calculations the weather conditions from the area that produced the farthest exclusion distance were utilized as required in 49 CFR §193.2057(b). The results of these calculations show that the thermal exclusion zones fall within the confines of the FGS property or on land under the control of FGS.

The vapor dispersion analysis will comply with all applicable requirements, including Conditions 31 and 32 in the Certificate and the follow up letter from FERC dated October 8, 2010 regarding the interpretation of the 49 CFR Part 193 regulations by the U.S. Department of Transportation's Pipeline and Hazardous Material Safety Administration (PHMSA). PHMSA is now requiring that FERC LNG facility applicants deal directly with PHMSA regarding project-specific siting requirements. As soon as PHMSA has approved spill criteria for the FGS Project, FGS will perform a compliant vapor dispersion analysis and submit to it PHMSA for approval. Preliminary analysis indicates that all flammable vapor dispersion exclusion zones will fall within property under the control of FGS.

1.5 PERMITS AND APPROVALS

Construction, operation, and maintenance of the Project will be in accordance with all applicable permits and approvals. Table 1.5-1 summarizes the current status of permits and approvals that FGS has or will seek, along with the schedule for any such filings.

1.6 AFFECTED LANDOWNERS

FGS has maintained an exclusive option to purchase the 145-acre Site. In accordance with the requirements of Section 157.6(d) of the FERC Regulations, FGS has identified all the landowners adjacent to the Site and all landowners of residences within one-half mile of the storage facility and will send formal written notification to these landowners after the Amendment Application has been filed. The names and mailing addresses of these landowners are listed in Appendix 1-A, which is being filed as a Privileged and Confidential document.

TABLES

TABLE 1.5-1
PERMITS AND APPROVALS

TABLE 1.5-1

PERMITS AND APPROVALS - FLORIDIAN NATURAL GAS STORAGE PROJECT

Agency	Permit/Approval	Issued Permit No.	Expiration Date
FEDERAL			
Federal Energy Regulatory Commission (FERC)	Section 3 of the Natural Gas Act	Docket No. CP08-13-000	August 29, 2014
U.S. Department of the Army Corps of Engineers (USACE)	Section 404 (CWA)	SAJ-2007-4717 (NW/GP-EGR)	April 25, 2014
Florida Coastal Management Program (FCMP) ¹	Certification that the Project is consistent with the Coastal Zone Management Act and Florida Coastal Management Plan. Accomplished through review of ERP	Permit No. 43-0280459-001, Permit No. 43-0280459-002	See FDEP ERP
Federal Aviation Administration (FAA)	Permit for Objects That May Affect Navigable Airspace	To Be Determined (TBD)	Prior to Construction
U.S. Fish and Wildlife Service (USFWS) / National Marine Fisheries Service	Section 7 of Endangered Species Act Consultation	Per USACE Permt SAJ-2007-4717 (NW/GP-EGR)	NA
U.S. Environmental Protection Agency (USEPA)	Spill Prevention, Control and Countermeasure (SPCC) – Plan required to be maintained on site. No submittal for approval.	TBD	Prior to Construction and Operation
Florida Department of State (FDOS)	Section 106 of the National Historic Preservation Act	NA	Complete
STATE OF FLORIDA			
Department of Environmental Protection (FDEP)	Minor Source Air Construction Permit	FDEP Permit No. 0850147-006-AC	2013- Currently in Renewal Process
	Notice of Intent (NOI) to Discharge Stormwater Associated with Construction Activity	TBD	Submit Application at least 2 days Prior to Construction
	NPDES Notice of Intent (NOI) to Discharge Hydrostatic Test Wastewater	Permit No. FL0613479-001-IW3S	2013- Currently in Renewal Process
	Environmental Resource Permit (ERP) 401 Water Quality Certification	Permit No. 43-0280459-001, Permit No. 43-0280459-002	2013 - Currently in Renewal Process

TABLE 1.5-1

PERMITS AND APPROVALS - FLORIDIAN NATURAL GAS STORAGE PROJECT

Agency	Permit/Approval	Issued Permit No.	Expiration Date
FEDERAL			
	FDEP Sanitary Wastewater Interconnect	Permit No. 0139946-014-DWC	2013 - Currently in Renewal Process
South Florida Water Management District (SFWMD)	Water Use Permit - Irrigation	Permit No. 43-02115-W	March, 2028
	Water Use Permit (WUP) / Consumptive Use Permit (CUP)	43-02186-W	February 11, 2018
Florida Fish and Wildlife Conservation Commission	FWCC Relocation Permit (Gopher Tortoise)	To Be Determined	Prior to Construction
LOCAL			
Martin County	Site Plan Approval	Martin County Resolution No. 08-5.11	February 2, 2015
	Building Permits	TBD	Prior to Construction

¹Coastal Management Program (FCMP) coordinates the actions of eight agencies and five water management districts using 23 statutes to protect Florida's coastal interests. The agencies that comprise the FCMP are:

- The Department of Environmental Protection (DEP), which is the lead agency for the FCMP and home of the State Clearinghouse. DEP serves as the state's chief environmental regulatory agency and the manager and steward of many of its natural resources;
- The Fish and Wildlife Conservation Commission (FWCC), which exercises jurisdiction over fresh and saltwater fisheries, marine mammals, birds, and both upland game and non-game animals, including endangered species;
- The Division of Historical Resources of the Department of State (DOS), which is charged with the protection of the state's historical and archaeological resources;
- The Governor's Office of Planning and Budgeting (OPB), which prepares the state's biennial budget and plays a role in the state's comprehensive planning process;
- The Department of Transportation (DOT), which is charged with the development, maintenance, and protection of the state's transportation system;
- The Department of Health (DOH), which, among other responsibilities, regulates on-site sewage disposal;
- The Division of Forestry of the Department of Agriculture and Consumer Services (DACS), which administers the state's forestry programs and reviews mosquito control projects; and
- The Department of Community Affairs (DCA), which serves as the state's land planning and emergency management agency.

FIGURES

FIGURE 1.2-1

SITE PLAN

***CRITICAL ENERGY INFRASTRUCTURE INFORMATION
DO NOT RELEASE***

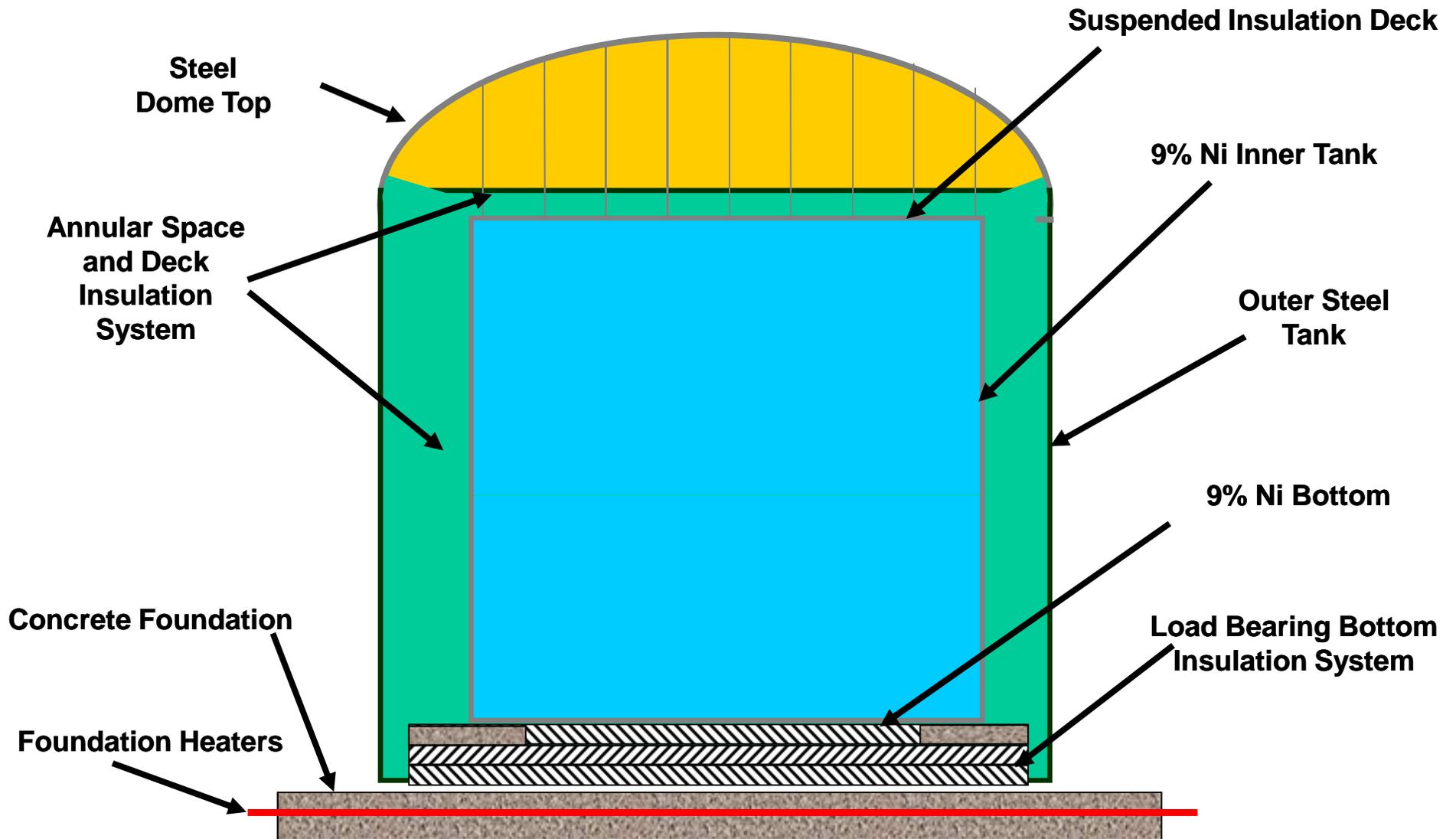
FIGURE 1.2-2

BLOCK FLOW DIAGRAM

***CRITICAL ENERGY INFRASTRUCTURE INFORMATION
DO NOT RELEASE***

FIGURE 1.2-3

**CONCEPTUAL DESIGN OF SINGLE CONTAINMENT NATURAL
GAS STORAGE TANK**



Conceptual Design of Single Containment Natural Gas Storage Tank

Figure 1.2-3

APPENDICES

APPENDIX 1-A

LIST OF LANDOWNERS

***PRIVILEGED AND CONFIDENTIAL INFORMATION
DO NOT RELEASE***

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**FLORIDIAN NATURAL GAS
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CERTIFICATE AMENDMENT

DOCKET NO. CP13-____-000

RESOURCE REPORT 11



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APPENDICES

Appendix 11-A	Phase 1 Single Containment LNG Tank Spill Size Calculations, Spill Containment Sizing Calculations, and Supporting Thermal Radiation Calculations (CEII)
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LIST OF ACRONYMS

Bcf	Billion Cubic Feet
Btu/hr/ft ²	British Thermal Unit per Hour Per Square Foot
CFR	Code of Federal Regulations
cu ft	Cubic Feet
DCS	Distributed Control System
DOT	United States Department of Transportation
ESD	Emergency Shutdown System
°F	Degrees Fahrenheit
FERC	Federal Energy Regulatory Commission
FGS	Floridian Natural Gas Storage Company, LLC
LNG	Liquefied Natural Gas
m ³	Cubic Meters
MMscfd	Million Standard Cubic Feet per Day
MSE	Mechanically Stabilized Earth
NFPA	National Fire Protection Association
PHMSA	Pipeline and Hazardous Material Safety Administration
PLCs	Programmable Logic Controllers
QA	Quality Assurance
QC	Quality Control
SIS	Safety Instrumentation System
UPS	Uninterruptible Power Supply
UV/IR	Ultraviolet/Infrared
US	United States

11.0 RESOURCE REPORT 11

11.1 INTRODUCTION

Floridian Natural Gas Storage Company, LLC (FGS) holds a Certificate of Public Convenience and Necessity issued on August 29, 2008 and extended on August 15, 2013 by the Federal Energy Regulatory Commission (FERC or the Commission) in Docket No. CP08-13-000 (Certificate). The Certificate authorizes FGS to construct, own and operate a new natural gas storage facility at the site of the former Florida Steel manufacturing facility (Site) about two miles north of Indiantown in Martin County, Florida (the FGS Project or Project). FGS seeks to amend its authorization. The proposed amendment would modify FGS's certificated Phase 1 facilities to build a 1 billion cubic feet (Bcf) tank and associated 100 million standard cubic feet per day (MMscfd) of vaporization, in lieu of a 4 Bcf tank and 400 MMscfd of vaporization. These facilities as modified will have no larger impacts than those of the originally certificated facilities.

In connection with its Abbreviated Application to Amend Certificate of Public Convenience and Necessity (Amendment Application), FGS has prepared Resource Reports relevant to the proposed amendment. This Resource Report 11 addresses reliability and safety of the facility as it pertains to the incorporation of a 1 Bcf single containment liquefied natural gas (LNG) storage tank for Phase 1 that will be constructed with a separate impoundment consisting of a Mechanically Stabilized Earth (MSE) berm.

11.2 FACILITY EXCLUSION ZONES

11.2.1 Phase 1 Storage Tank Impoundment Sizing Criteria and Dimensions

The FGS Project will be designed to comply with the US Department of Transportation (DOT) regulations governing the siting of a liquefied natural gas facility (49 CFR Part 193, Subpart B), in that the Project facilities will be located at a site of suitable size, topography, and configuration so as to minimize the potential risk to off-site persons and property resulting from any spill of cryogenic liquid at the Site. A site plan showing the impoundment facilities is presented as Figure 1.2-1 in Resource Report 1. Cross sections of the secondary MSE berm around the Phase 1 storage tank are presented in Figure 13.6-3 in Resource Report 13.

11.2.2 Design Spills

The Phase 1 single containment storage tank will be constructed with a separate impoundment that will consist of an MSE berm designed to contain 110% of the LNG single containment tank design capacity. Note: NFPA 59A 2001 Table 2.2.3.5 defines a design spill, for impounding areas serving liquefied natural gas containers with penetrations below the liquid level with internal shutoff valves as the flow through an assumed opening at, and equal in area to, that penetration below the liquid level that could result in the largest flow from an initially full container for a duration of 1 hour. The design spill for the storage tank bottom withdrawal has been calculated to be 682.9 cu ft per minute and requires a sump with a capacity of 40,975 cu ft for the 60-minute duration spill. The spill will be directed to a sump within the storage tank MSE impoundment with a capacity of 42,135 cu ft (53 ft x 53 ft x 15 ft depth) which exceeds the required capacity.

Spills from piping to and from the Phase 1 single containment storage tank will be collected by curbed concrete spill transmission troughs installed under the cryogenic piping. The transmission troughs inside the MSE impoundment wall will slope toward the spill impoundment sump also located inside the MSE impoundment wall. The sump will be isolated as much as practical from personnel and operating equipment (Figure 13.6-3 in Resource Report 13).

11.2.3 Thermal Radiation and Flammable Vapor Exclusion Analysis for Phase 1 Storage Tank

11.2.3.1 Thermal Radiation Exclusion Zones

Thermal radiation exclusion zones were calculated for the Phase 1 storage tank secondary MSE impoundment and sump using the computer model LNGFIRE III as required by 49 CFR §193.2057 and NFPA 59A Section 2.2.3.2(b)(1). In these calculations the weather conditions from the area that produced the farthest exclusion distance were utilized as required in 49 CFR §193.2057(b). The thermal radiation exclusion zone distances have been determined for the radiation levels of 1,600, 3,000 and 10,000 Btu/hr/ft² in accordance with NFPA 59A Section 2.2.3.2 and 49 CFR §193.2057. The results of the calculations indicate that all the thermal radiation exclusion zones defined by 49 CFR Part 193 and NFPA 59A are as indicated by the lines of constant radiation strengths or “isopleths” (Figure 1.2-1 in Resource Report 1). The thermal radiation exclusion zone calculations are included in Appendix 11-A.

As shown in Figure 1.2-1 in Resource Report 1, all thermal radiation exclusion zones fall within the confines of the FGS property, with the exception of the vault area, which will be retained by Ameristeel

but will be under the control of FGS. The five-acre vault area, which is subject to EPA deed restrictions that also apply to the Project Site, will be subject to additional restrictions on future development and use as per an agreement dated April, 2007 between FGS and Ameristeel

11.2.3.2 Flammable Vapor Dispersion Exclusion Zones

The vapor dispersion analysis will comply with all applicable requirements, including Conditions 31 and 32 in the Certificate and the follow up letter from FERC dated October 8, 2010 regarding the interpretation of the 49 CFR Part 193 regulations by the U.S. Department of Transportation's Pipeline and Hazardous Material Safety Administration (PHMSA). PHMSA is now requiring that FERC LNG facility applicants deal directly with PHMSA regarding project-specific siting requirements. FGS will coordinate with PHMSA and, as soon as PHMSA has approved spill criteria for the FGS Project, FGS will perform a compliant vapor dispersion analysis and submit it to PHMSA for approval. FGS will calculate the vapor dispersion exclusion zones using the appropriate gas dispersion models (DEGADIS, PHAST, or FLACS). In these calculations, the weather conditions from the area that produce the furthest exclusion distance will be used to follow the requirements in 49 CFR Part 193.2059(b)(2a). Preliminary analysis indicates that all flammable vapor dispersion exclusion zones will fall within property under the control of FGS.

References

Code of Federal Regulations - 49 CFR Part 193. Title 49 Transportation. Liquefied Natural Gas Facilities: Federal Safety Standards. Code of Federal Regulations. Washington, D.C.

Code of Federal Regulations - 49 CFR § 193.2057. Title 49 Transportation. Thermal Radiation Protection. Code of Federal Regulations. Washington, D.C.

Code of Federal Regulations - 49 CFR § 193.2059. Title 49 Transportation. Flammable Vapor-Gas Dispersion Protection. Code of Federal Regulations. Washington, D.C.

National Fire Protection Association. 2001. NFPA 59: Utility LP-Gas Plant Code, 2001 Edition. National Fire Protection Association. Quincy, MA.

National Fire Protection Association. 2001. NFPA 59A: Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG), 2001 Edition. National Fire Protection Association. Quincy, MA.

APPENDICES

APPENDIX 11-A

Phase 1 Single Containment LNG Tank Spill Size Calculations, Spill Containment Sizing Calculations, Supporting Thermal Radiation Exclusion Zone Calculations

*Critical Energy Infrastructure Information
Do Not Release*