

127 FERC ¶ 61,044  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

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

EcoEléctrica, L.P.

Docket No. CP95-35-001

ORDER AMENDING AUTHORIZATION UNDER SECTION 3  
OF THE NATURAL GAS ACT

(Issued April 16, 2009)

1. On March 5, 2008, EcoEléctrica, L.P. (EcoEléctrica) filed an application to amend its previous authorizations under section 3 of the Natural Gas Act (NGA), issued by the Commission on May 15, 1996 (May 1996 Order), for the siting, construction, and operation of liquefied natural gas (LNG) facilities for the importation of natural gas into the Commonwealth of Puerto Rico (Puerto Rico).<sup>1</sup> EcoEléctrica seeks Commission approval of its Terminal Modification Project (project), which would install two additional vertical shell and tube heat exchange vaporizers at the EcoEléctrica LNG terminal in order to deliver a greater volume of natural gas to Puerto Rico Electric Power Authority's (Power Authority) Aguirre Combined Cycle Power Plant. During the course of reviewing EcoEléctrica's application a great deal of additional information was sought and provided that was necessary to complete Commission staff's environmental review of EcoEléctrica's proposal.<sup>2</sup> For the reasons discussed herein, we will approve the requested modifications to EcoEléctrica's previous authorizations under section 3 of the NGA, subject to the conditions discussed herein.

**I. Background**

2. In the May 1996 Order, the Commission authorized EcoEléctrica to site, construct, and operate LNG import terminal facilities, including: (1) a marine terminal with a

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<sup>1</sup> *EcoEléctrica, L.P.*, 75 FERC ¶ 61,157 (1996).

<sup>2</sup> EcoEléctrica responded to four Commission staff environmental information requests. The responses and supplements were filed on April 24, 2008, May 30, 2008, July 18, 2008, August 5, 2008, September 5, 2008, September 29, 2008, October 8, 2008, and November 13, 2008.

1,800-foot pier for unloading LNG tankers; (2) two 1-million-barrel LNG storage tanks;<sup>3</sup> (3) an LNG vaporization system;<sup>4</sup> and (4) various control systems, piping, and other ancillary equipment. The Commission found that EcoEléctrica's LNG terminal would provide an environmentally acceptable alternative to oil in meeting the increasing electric demands of Puerto Rico. In view of these considerations, the Commission found that the LNG terminal would not be inconsistent with the public interest.<sup>5</sup>

3. In conjunction with the LNG import terminal, EcoEléctrica also constructed: (1) a 461-megawatt electric cogeneration facility that uses vaporized LNG as a fuel source for power generation; (2) a desalination facility capable of producing up to 4 million gallons of fresh water per day; (3) other facilities necessary for the operation of the cogeneration facility, including a 2.3-mile, 230-kilovolt transmission line connecting the plant substation to an existing Power Authority substation and a gas line to serve the cogeneration facility; and (4) a gas line to serve the Power Authority's Costa Sur power plant.<sup>6</sup> The section 3 authorization granted in the May 1996 Order did not cover any of these facilities.

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<sup>3</sup> EcoEléctrica has only built one of the two LNG storage tanks approved in the May 1996 Order. EcoEléctrica has not commenced construction of the second storage tank or related facilities. Environmental Condition No. 11 of the May 1996 Order specified that "EcoEléctrica shall commence construction on its LNG facilities within 3 years of the date of this Order, or file a motion to extend the deadline, with the specific reasons why additional time is necessary." As noted, to date, over 12 years from issuance of the May 1996 Order, EcoEléctrica has not constructed the second authorized storage tank or four of the six authorized vaporizers. Nor did it ever file for an extension of time to construct these facilities. Therefore, the authorizations with respect to those facilities issued by the May 1996 Order have lapsed. Accordingly, should EcoEléctrica seek to build another LNG storage tank, or other related facilities, it must obtain prior Commission authorization.

<sup>4</sup> The May 1996 Order authorized EcoEléctrica to install up to six vaporizers (consisting of two vertical shell and tube heat exchanger vaporizers and four open rack vaporizers) in conjunction with the two approved LNG storage tanks. Since EcoEléctrica only constructed one LNG storage tank, it only installed two vaporizers. As stated above, if EcoEléctrica seeks to build another LNG storage tank, or other related facilities, it must at such time seek Commission authorization.

<sup>5</sup> *EcoEléctrica, L.P.*, 75 FERC at 61,515 and 61,518.

<sup>6</sup> The Power Authority's Costa Sur Power Plant was never converted to natural gas firing. Consequently, the pipeline intended to serve the plant was never constructed.

## II. Proposal

4. In the instant proceeding, EcoEléctrica requests authority under section 3 of the NGA to construct two additional vertical shell and tube heat exchanger vaporizers within EcoEléctrica's existing 36-acre LNG facility site. EcoEléctrica also proposes to install other facilities associated with the vaporizers including: (1) one fixed speed, in-tank LNG sendout pump; (2) three seawater heat exchangers; (3) three water/glycol circulation pumps; (4) one water/glycol expansion tank at 1,800 gallons; (5) one seawater supply pump at 6,000 gallons per minute (gpm); and (6) three seawater circulation pumps.

5. The proposed modifications to EcoEléctrica's existing LNG terminal facilities would enable it to supply natural gas to the Power Authority's Aguirre Combined Cycle Power Plant (Aguirre electric plant), in Aguirre, Puerto Rico, once the plant's conversion from fuel oil to natural gas is completed. EcoEléctrica proposed to interconnect its existing 1.2-mile, 24-inch send-out pipeline, which extends to the fenceline of its 36-acre LNG terminal site, with a Power Authority pipeline that would carry the regasified LNG to its Aguirre electric plant.<sup>7</sup>

6. EcoEléctrica's proposed LNG terminal modifications would enable it to increase its regasified LNG send-out capacity by an additional 77.4 (average) to 93 (peak) million standard cubic feet per day (MMscf/day), resulting in a total send-out capacity of approximately 186 MMscf/day. The existing LNG storage tank has sufficient volume capacity to accommodate this additional send out. EcoEléctrica confirms that no new compressors, liquid nitrogen storage, or pipelines will be required to implement the planned increase in send out.

7. EcoEléctrica states there would be no net increase in the amount of water withdrawn or discharged as a result of the modifications. The proposed vaporization facilities would use a closed-loop vaporization system that draws heat as a side stream from the same volume of water as EcoEléctrica currently withdraws for its existing LNG facilities.

8. EcoEléctrica asserts that to accommodate the increased send out of vaporized LNG, a total of two LNG vessels per month would call at the EcoEléctrica LNG terminal;

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<sup>7</sup> The Power Authority began constructing a 42-mile-long, natural gas pipeline from the Aguirre electric plant in 2008. This pipeline will tap into EcoEléctrica's existing 1.2-mile long send-out pipeline. The Power Authority will own and operate the 42-mile long pipeline currently under construction. The Power Authority's new pipeline underwent separate environmental analyses conducted by the U.S. Army Corp of Engineers (Army Corp) and the Puerto Rico Environmental Quality Control Board.

this would be an increase of one LNG vessel per month over the historic level of traffic. EcoEléctrica consulted with the U.S. Coast Guard (Coast Guard), which expressed no objection to the increased frequency of LNG vessel deliveries related to EcoEléctrica's proposal.

9. EcoEléctrica states that the proposed modifications were designed, and would be constructed and operated according to U. S. Department of Transportation safety standards.<sup>8</sup> All construction activities would occur within the fenceline of the LNG terminal site. EcoEléctrica plans to place the facilities in service by the end of 2009.

### **III. Notice and Interventions**

10. Public notice of EcoEléctrica's application was published in the *Federal Register* on March 24, 2008 (73 Fed. Reg. 15,511). Motions to intervene were due on or before April 8, 2008. Timely, unopposed motions to intervene were filed by Shell NA LNG LLC and Distrigas of Massachusetts LLC.<sup>9</sup> No comments or protests were filed regarding the application.

### **IV. Discussion**

11. Because the proposed LNG terminal facilities will be used to import gas from foreign countries, the siting, construction and operation of the facilities require approval by the Commission under section 3 of the NGA.<sup>10</sup>

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<sup>8</sup> 49 C.F.R. Part 193 (2008).

<sup>9</sup> Timely, unopposed motions to intervene are granted by operation of Rule 214 of the Commission's Rules of Practice and Procedure. 18 C.F.R. § 385.214 (2008).

<sup>10</sup> The regulatory functions of section 3 of the NGA were transferred to the Secretary of the U. S. Department of Energy (DOE) in 1977 pursuant to section 301(b) of the Department of Energy Organization Act (Pub. L. No. 95-91, 42 U.S.C. §§ 7101 *et seq.*). In reference to regulating the imports or exports of natural gas, the DOE Secretary has delegated to the Commission the authority to approve or disapprove the construction and operation of particular facilities, the site at which facilities shall be located and, with respect to natural gas that involves the construction of new domestic facilities, the place of entry or exit for exports. *See* DOE Delegation Order No. 00-044A.00 (2006), FERC Stats. & Regs. ¶ 9920 (reissuing, effective May 16, 2006, authorities contained in previous delegation orders). In addition, section 3(e)(1) of the NGA, as amended by section 311(c) of the Energy Policy Act of 2005 (EPAAct 2005), Pub. L. 109-58, 119 Stat. 594, provides that the Commission has exclusive authority to approve or deny applications for the construction or operation of LNG terminals. DOE

(continued)

12. The Commission's authority over facilities constructed and operated under section 3 of the NGA includes the authority to apply terms and conditions as necessary and appropriate to ensure that the proposed construction and siting is in the public interest.<sup>11</sup> Section 3 provides that the Commission "shall issue such order on application" if it finds that the proposal "will not be inconsistent with the public interest."<sup>12</sup>

13. The Commission previously authorized EcoEléctrica to install six vaporizers on its LNG facility. Currently, only two vaporizers have been installed. The two proposed vaporizers are of the same type and function as two of those initially authorized and installed. Although the proposed modifications will increase EcoEléctrica's send-out capacity from 93 MMscf/day to 186 MMscf/day, the send-out capacity will remain below the import capacity of 130 billion cubic feet (Bcf) per year currently authorized by DOE's Office of Fossil Energy (DOE/FE).<sup>13</sup> The proposed project will not change the authorized level of expansion capacity or the deliverability of the terminal.<sup>14</sup>

14. To achieve a greater send-out capacity, EcoEléctrica will need to increase the incoming volumes of LNG. This will be accomplished by increasing vessel traffic to 24 LNG vessels per year, from the historic level of 12 LNG vessels per year. However, we note that EcoEléctrica's original October 1994 application, as well as the Coast Guard's 1996 letter of recommendation, contemplated a much higher amount of vessel traffic (up to 60 LNG vessel unloadings per year), than what would result from the

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has retained authority to act on applications for authority to import or export natural gas. Such applications must be submitted to DOE's Office of Fossil Energy. The Commission does not authorize the importation of the commodity itself.

<sup>11</sup> See section 3(e)(3)(A) of the NGA, as enacted by section 311(c) of EPA Act 2005. See also *Distragas Corporation v. FPC*, 495 F.2d 1057, 1063-64, cert. denied, 419 U.S. 834 (1974); *Dynegy LNG Production Terminal, L.P.*, 97 FERC ¶ 61,231 (2001).

<sup>12</sup> 15 U.S.C. § 717b(a) (2006).

<sup>13</sup> *EcoEléctrica, L.P.*, 75 FERC at 61,516. See DOE/FE Order No. 1042 (April 19, 1995) (granting EcoEléctrica authority to import 130 Bcf of LNG per year for a 40-year term).

<sup>14</sup> Since there will be no impact on Puerto Rico or local safety concerns, the pre-filing procedures for review of LNG terminals established in Order No. 665 are not implicated by the addition of vaporizers requested herein. See *Regulations Implementing Energy Policy Act of 2005, Pre-Filing Procedures for Review of LNG Terminals and Other Natural Gas Facilities*, Order No. 665, FERC Stats. & Regs. ¶ 31,195 (2005).

proposed project. In reviewing EcoEléctrica's current proposal, the Commission's staff has consulted with the Coast Guard and the U.S. Fish and Wildlife Service. Neither of these agencies have expressed any concerns with the increase in LNG vessel traffic that will result from approval of EcoEléctrica's proposal. The Commission finds that the additional LNG vessels calling on the LNG facility would not have an adverse impact on public interest or the environment.

15. EcoEléctrica's LNG terminal was the first, and remains the only, source of natural gas in Puerto Rico. EcoEléctrica's proposed project will enable it to deliver natural gas to the Power Authority's Aguirre plant, replacing No. 2 distillate oil as the plant's fuel for generating electricity. The increase in natural gas supply is an environmentally acceptable alternative to oil in meeting the anticipated increases in electric demand of Puerto Rico.

16. The instant proposal will not have an impact on landowners, since all of the construction is taking place within EcoEléctrica's existing LNG terminal site. Currently, all of the regasified LNG sent out from EcoEléctrica's LNG terminal is used as fuel at its own facilities. Thus, EcoEléctrica has no existing customers that might be adversely affected by the costs or risks of recovery of those costs from the proposed modifications. Therefore, we find that, subject to the conditions imposed in this Order, EcoEléctrica's proposal is not inconsistent with the public interest.

## **V. Environmental Assessment**

17. On June 11, 2008, the Commission issued a *Notice of Intent to Prepare an Environmental Assessment for the proposed EcoEléctrica Terminal Modification Project and Request for Comments on Environmental Issues* (NOI). The notice was published in the *Federal Register* on June 18, 2008 (73 Fed. Reg. 34,720). The NOI was sent to affected landowners; federal, state/commonwealth, and local government agencies; elected officials; environmental and public interest groups; and local libraries and newspapers. No comments were received in response to our NOI.

18. Like the authorizations granted in the original Order, Commission staff's conclusions and recommendations in its 1996 environmental impact statement are out-of-date. As a result, the environmental staff was not able to rely on its environmental impact statement to the extent that EcoEléctrica contemplated, and materials which EcoEléctrica had not prepared at the time its application was filed were needed for staff to complete its environmental review. In the end, EcoEléctrica was required to file a substantial amount of new and updated information and mitigation plans.

19. To satisfy the requirements of the National Environmental Policy Act (NEPA), our staff prepared an environment assessment (EA) which was distributed for public comment and placed in the record on February 13, 2009. Issuance of the EA was published in the *Federal Register* on February 23, 2009 (74 Fed. Reg. 8,079). The

analysis in the EA addressed: geology; soils; water resources and wetlands; vegetation; fisheries and wildlife (including threatened and endangered species); essential fish habitat; land use, recreation and visual resources; cultural resources; air quality and noise; safety; socioeconomics; cumulative impacts; and alternatives. The public comment period ended on March 16, 2009. No comments were received.

20. In a letter dated March 6, 2009, the U.S. Fish and Wildlife Service (FWS) concurred with the determination presented in our staff's Biological Assessment, that the project was not likely to adversely affect the brown pelican or the Antillean manatee. Because our consultation with the FWS is complete, we have modified the EA's recommendation that the Director of the Office of Energy Projects withholds authorization for the commencement of construction until the staff completes its consultation with the National Oceanic and Atmospheric Administration National Marine Fisheries Service.

21. Any state/commonwealth 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 regulated entities and local authorities. However, this does not mean that state/commonwealth and local agencies, through application of state/commonwealth or local laws, may prohibit or unreasonably delay the construction of facilities approved by this Commission.<sup>15</sup>

22. Based on the discussion in the EA, we conclude that if constructed in accordance with EcoEléctrica's application and supplements and the conditions imposed herein, approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment.

## **VI. Conclusion**

23. For the reasons set forth herein, and subject to the conditions set forth below in the Appendix, we find that EcoEléctrica's proposed modifications are not inconsistent with the public interest under section 3 of the NGA. Thus, we grant the requested authorization to EcoEléctrica.

24. At a hearing held on April 16, 2009, the Commission on its own motion received and made part of the record all evidence, including the application and exhibits thereto,

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<sup>15</sup> 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).

submitted in support of the authorization sought herein, and upon consideration of the record,

The Commission orders:

(A) EcoEléctrica's authorization under section 3 of the NGA, issued May 15, 1996, for its approved LNG terminal is amended as more fully described in EcoEléctrica's application and as conditioned herein.

(B) Except as provided herein, the authorization issued May 15, 1996, remains unchanged and EcoEléctrica must comply with all of the conditions applicable to the LNG terminal set forth in the Appendix to the May 15, 1996 Order.

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

By the Commission.

( S E A L )

Kimberly D. Bose,  
Secretary.

## Appendix

### Environmental Conditions for EcoEléctrica's LNG Terminal Modification Project Docket No. CP95-35-001

As recommended in the Environmental Assessment, this authorization includes the following conditions:

1. EcoEléctrica, L.P. (EcoEléctrica) shall follow the construction procedures and mitigation measures described in its application and supplements, including responses to staff data requests, and as identified in the Environmental Assessment (EA), unless modified by the order. EcoEléctrica must:
  - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);
  - b. justify each modification relative to site-specific conditions;
  - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
  - d. receive approval in writing from the Director of the Office of Energy Projects (OEP) before using that modification.
2. The Director of OEP has delegated authority to take all steps necessary to ensure the protection of life, health, property, and all environmental resources during construction and operation of the project. This authority shall include:
  - a. stop-work authority and authority to cease operation; and
  - b. the design and implementation of any additional measures deemed necessary to assure continued compliance with the intent of the conditions of the Commission order.
3. **Prior to construction**, EcoEléctrica shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors, and contractor personnel will be informed of the environmental inspector's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs before becoming involved with construction and restoration activities.
4. **Within 60 days of the acceptance of this certificate and before construction** begins, EcoEléctrica shall file an initial Implementation Plan with the Secretary for review and written approval by the Director of OEP. EcoEléctrica must file revisions to the plan as schedules change. The plan shall identify:

- a. how EcoEléctrica will implement the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests), identified in the EA, and required by this Order;
  - b. how EcoEléctrica will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;
  - c. the number of environmental inspectors assigned to the project, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
  - d. company personnel, including environmental inspectors and contractors, who will receive copies of the appropriate material;
  - e. the training and instructions EcoEléctrica will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change);
  - f. the company personnel (if known) and specific portion of EcoEléctrica's organization having responsibility for compliance;
  - g. the procedures (including use of contract penalties) EcoEléctrica will follow if noncompliance occurs; and
  - h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
    - (1) the completion of all required surveys and reports;
    - (2) the mitigation training of onsite personnel;
    - (3) the start of construction; and
    - (4) the start and completion of restoration.
5. Beginning with the filing of its initial Implementation Plan, EcoEléctrica shall file updated status reports with the Secretary on a monthly basis until all construction and restoration activities are complete. On request, these status reports will also be provided to other federal and state/commonwealth agencies with permitting responsibilities. Status reports shall include:
- a. an update on EcoEléctrica's efforts to obtain the necessary federal authorizations;
  - b. the construction status of the project and work planned for the following reporting period;
  - c. a listing of all problems encountered and each instance of noncompliance observed by the environmental inspector during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state/commonwealth, or local agencies);

- d. a description of the corrective actions implemented in response to all instances of noncompliance, and their cost;
  - e. the effectiveness of all corrective actions implemented;
  - f. a description of any landowner/resident complaints which may relate to compliance with the requirements of the order, and the measures taken to satisfy their concerns; and
  - g. copies of any correspondence received by EcoEléctrica from other federal, state/commonwealth, or local permitting agencies concerning instances of noncompliance, and EcoEléctrica's response.
6. EcoEléctrica must receive written authorization from the Director of OEP **before commencing service** from the project. Such authorization will only be granted following a determination that rehabilitation and restoration of the areas disturbed by the project are proceeding satisfactorily.
7. EcoEléctrica **shall not begin construction** until the FERC staff completes any necessary consultation with the National Oceanic and Atmospheric Administration National Marine Fisheries Service and EcoEléctrica requests and receives written notification from the Director of OEP that construction and/or use of mitigation (including implementation of conservation measures) may begin.

The following measures shall apply to the EcoEléctrica Terminal Modification Project design and construction details. Information pertaining to these specific recommendations shall be filed with the Secretary for review and approval by the Director of OEP either: prior to initial site preparation; prior to construction of final design; prior to commissioning; or prior to commencement of service as indicated by each specific condition. Specific engineering, vulnerability, or detailed design information meeting the criteria specified in Order No. 683 (Docket No. RM06-24-000), including security information, should be submitted as critical energy infrastructure information (CEII) pursuant to 18 C.F.R. § 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 would be subject to public disclosure. This information should be submitted a minimum of 30 days before approval to proceed is required.

8. Complete plan drawings and a list of the hazard detection equipment shall be filed **prior to initial site preparation**. The list shall include the instrument tag number, type and location, alarm locations, and shutdown functions of the proposed hazard detection equipment. Plan drawings shall clearly show the location of all detection equipment.

9. Complete plan drawings and a list of the fixed and wheeled dry-chemical, fire extinguishing, and other hazard control equipment shall be filed **prior to initial site preparation**. The list shall include the equipment tag number, type, size, equipment covered, and automatic and manual remote signals initiating discharge of the units. Plan drawings shall clearly show the planned location of all fixed and wheeled extinguishers.
10. Facility plans showing the proposed location of, and area covered by, each monitor, hydrant, deluge system, hose, and sprinkler, as well as piping and instrumentation diagrams, of the firewater system shall be filed **prior to initial site preparation**.
11. The **final design** of the fixed and wheeled dry-chemical, fire extinguishing, and other hazard control equipment shall identify manufacturer and model.
12. The **final design** shall specify that dual temperature elements and transmitters are provided for low temperature alarm and shutdown at the discharge of each vaporizer.
13. The **final design** shall include a check valve between the LNG vaporizer discharge shutoff valve and the discharge manual isolation valve for all existing and proposed vaporizers.
14. The **final design** shall specify that for LNG and natural gas service, branch piping and piping nipples less than 2 inches are to be no less than schedule 160.
15. The **final design** shall include details of the shutdown logic, including cause and effect matrices for alarms and shutdowns.
16. The **final design** shall include details of the air gaps to be installed downstream of all seals or isolations installed at the interface between a flammable fluid system and an electrical conduit or wiring system. Each air gap shall vent to a safe location and be equipped with a leak detection device that: shall continuously monitor for the presence of a flammable fluid; shall alarm the hazardous condition; and shall shut down the appropriate systems.
17. The **final design** shall include a hazard and operability review of the completed design. A copy of the review and a list of the recommendations shall be filed with the Secretary.
18. The **final design** shall provide up-to-date Piping & Instrument Diagrams (P&IDs) including a description of the instrumentation and control philosophy, type of instrumentation (pneumatic, electronic), use of computer technology, and control

room display and operation. Drawings and all information should be clearly legible on 11- by 17-inch paper and the piping legend and symbology shall be in accordance with accepted practice. All drawings shall be filed in black and white. The following information shall be included on the P&IDs:

- a. equipment tag number, name, size, duty, capacity and design conditions;
  - b. piping with line number, piping class specification, size and insulation;
  - c. LNG tank pipe penetration size or nozzle schedule;
  - d. piping specification breaks and insulation limits;
  - e. isolation flanges, blinds and insulating flanges;
  - f. valve type, in accordance with the piping legend symbol;
  - g. all control valves numbered;
  - h. all valve operator types and valve fail position;
  - i. instrumentation numbered;
  - j. control loops including software connections;
  - k. alarm and shutdown set points;
  - l. shutdown interlocks;
  - m. relief valves numbered, with set point;
  - n. relief valve inlet and outlet piping size;
  - o. car-sealed valves and blinds;
  - p. equipment insulation;
  - q. drawing revision number and date;
  - r. all manual valves numbered, including check, vent, drain, and car-sealed valves; and
  - s. alarm and shutdown set points.
19. The **final design** shall specify that all hazard detection equipment include redundancy, fault detection, and fault alarm monitoring.
  20. All valves including drain, vent, main, and car-sealed valves shall be tagged in the field during construction and **prior to commissioning**.
  21. A tabulated list of the proposed hand-held fire extinguishers shall be filed **prior to commissioning**. The information shall include a list with the equipment number, type, size, number, and location. Plan drawings shall include the type, size, and number of all hand-held fire extinguishers.
  22. Updated Operation and Maintenance procedures and manuals, as well as safety procedure manuals, shall be filed **prior to commissioning**.
  23. FERC staff shall be notified of any proposed revisions to the security plan and physical security of the facility **prior to commencement of service**.

24. Progress on construction of the LNG terminal modifications shall be reported in monthly reports filed with the Secretary. Details shall include a summary of activities, projected schedule for completion, problems encountered and remedial actions taken. Problems of significant magnitude shall be reported to the FERC **within 24 hours**.

In addition, the following measures should apply throughout the life of the facility:

25. The facility shall be subject to regular FERC staff technical reviews and site inspections on at least an annual basis or more frequently as circumstances indicate. Prior to each FERC staff technical review and site inspection, EcoEléctrica 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.
26. **Semi-annual** operational reports shall be filed with the Secretary to identify changes in facility design and operating conditions, abnormal operating experiences, activities (including ship arrivals, quantity and composition of imported LNG, vaporization quantities, boil-off/flash gas, etc.), and plant modifications including future plans and progress thereof. Abnormalities shall include, but not be limited to: unloading/shipping problems, potential hazardous conditions from off-site vessels, storage tank stratification or rollover, geysering, storage tank pressure excursions, cold spots on the storage tanks, storage tank vibrations and/or vibrations in associated cryogenic piping, storage tank settlement, significant equipment or instrumentation malfunctions or failures, non-scheduled maintenance or repair (and reasons therefore), relative movement of storage tank inner vessels, vapor or liquid releases, fires involving natural gas and/or from other sources, negative pressure (vacuum) within a storage tank and higher-than-predicted boiloff rates. Adverse weather conditions and the effect on the facility also shall be reported. Reports should be submitted **within 45 days** after each period ending **June 30 and December 31**. In addition to the above items, a section entitled “Significant plant modifications proposed for the next 12 months (dates)” also shall be included in the semi-annual operational reports. Such information would provide the FERC staff with early notice of anticipated future construction/maintenance projects at the LNG facility.
27. In the event the temperature of any region of any secondary containment becomes less than the minimum specified operating temperature for the material, the

Commission shall be notified **within 24 hours** and procedures for corrective action should be specified.

28. Significant non-scheduled events, including safety-related incidents (i.e., LNG or natural gas releases, fires, explosions, mechanical failures, unusual over pressurization, and major injuries) and security related incidents (i.e., attempts to enter site, suspicious activities) shall be reported to the 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 the Commission staff **within 24 hours**. This notification practice shall be incorporated into the LNG facility's emergency plan. Examples of reportable LNG-related incidents include:
- a. fire;
  - b. explosion;
  - c. estimated property damage of \$50,000 or more;
  - d. death or personal injury necessitating in-patient hospitalization;
  - e. free flow of LNG that results in pooling;
  - f. unintended movement or abnormal loading by environmental causes, such as an earthquake, landslide, or flood, that impairs the serviceability, structural integrity, or reliability of an LNG facility that contains, controls, or processes gas or LNG;
  - g. any crack or other material defect that impairs the structural integrity or reliability of an LNG facility that contains, controls, or processes gas or LNG;
  - h. any malfunction or operating error that causes the pressure of a pipeline or LNG facility that contains or processes gas or LNG to rise above its maximum allowable operating pressure (or working pressure for LNG facilities) plus the build-up allowed for operation of pressure-limiting or control devices;
  - i. a leak in an LNG facility that contains or processes gas or LNG that constitutes an emergency;
  - j. inner tank leakage, ineffective insulation, or frost heave that impairs the structural integrity of an LNG storage tank;
  - k. any condition that could lead to a hazard and cause a 20 percent reduction in operating pressure or shutdown of operation of a pipeline or an LNG facility;
  - l. safety-related incidents to LNG vessels occurring at or en route to and from the LNG facility; or

- m. an event that is significant in the judgment of the operator and/or management even though it did not meet the above criteria or the guidelines set forth in an LNG facility's incident management plan.

In the event of an incident, the Director of OEP has delegated authority to take whatever steps are necessary to ensure operational reliability and to protect human life, health, property or the environment, including authority to direct the LNG facility to cease operations. Following the initial company notification, the Commission staff would determine the need for an on-site inspection by the Commission staff, and the timing of an initial incident report (normally within 10 days) and follow-up reports.

29. EcoEléctrica shall develop an updated Emergency Response Plan (ERP) (including evacuation) and coordinate procedures with the Coast Guard, state/commonwealth, county, and local emergency planning groups; fire departments; state/commonwealth and local law enforcement; and appropriate federal agencies. This plan shall include at a minimum:
  - a. designated contacts with state/commonwealth and local emergency response agencies;
  - b. scalable procedures for the prompt notification of appropriate local officials and emergency response agencies based on the level and severity of potential incidents;
  - c. procedures for notifying residents and recreational users within areas of potential hazard;
  - d. evacuation routes/methods for residents and other public use areas that are within any transient hazard areas along the route of the LNG vessel transit;
  - e. locations of permanent sirens and other warning devices; and
  - f. an "emergency coordinator" on each LNG vessel to activate sirens and other warning devices.

The ERP shall be filed with the Secretary for review and written approval by the Director of OEP **prior to initial site preparation**. EcoEléctrica shall notify the FERC staff of all planning meetings in advance and shall report progress on the development of its ERP at **3-month intervals**.

30. The ERP shall include a Cost-Sharing Plan identifying the mechanisms for funding all project-specific security/emergency management costs that would be imposed on state/commonwealth and local agencies. In addition to the funding of direct transit-related security/emergency management costs, this comprehensive plan shall include funding mechanisms for the capital costs associated with any necessary security/emergency management equipment and personnel base. The

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