

112 FERC ¶ 61,101
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

Ingleside Energy Center, LLC

Docket No. CP05-13-000

San Patricio Pipeline, LLC

Docket Nos. CP05-11-000
CP05-12-000
CP05-14-000

ORDER GRANTING AUTHORITY UNDER SECTION 3 OF THE NATURAL GAS
ACT AND ISSUING CERTIFICATES

(Issued July 22, 2005)

1. On October 25, 2004, Ingleside Energy Center, LLC (Ingleside) filed, in Docket No. CP05-13-000, an application, under section 3 of the Natural Gas Act (NGA) requesting authority to site, construct, and operate a liquefied natural gas (LNG) terminal near Ingleside, Texas. Concurrently, in Docket No. CP05-11-000, San Patricio Pipeline, LLC (San Patricio) filed an application under NGA section 7(c) and subpart A of Part 157 of the Commission's regulations for authorization to construct and operate a 26.4-mile, 26-inch diameter pipeline from the outlet of Ingleside's proposed LNG terminal to interconnections with several interstate and intrastate pipeline facilities in San Patricio County, Texas.
2. In addition, in Docket No. CP05-12-000, San Patricio requests a blanket certificate under subpart F of Part 157 of the Commission's regulations to perform routine construction activities and operations. In Docket No. CP05-14-000, San Patricio requests a blanket certificate under subpart G of Part 284 of the Commission's regulations to provide open-access transportation services for its customers.

Proposal

3. Ingleside proposes to construct and operate an LNG terminal on the northeast shoreline of Corpus Christi Bay near Ingleside, Texas that will import, store and vaporize foreign source LNG.¹ In addition, the design of Ingleside's facility provides an option for extracting natural gas liquids. San Patricio proposes to construct and operate pipeline facilities to transport vaporized LNG from Ingleside's facility to interconnections with several intrastate and interstate pipeline companies.

A. Ingleside's LNG Proposal

4. Ingleside's proposed LNG terminal will be located on an 82 acre brown-field site adjacent to a chemical manufacturing facility owned by Occidental Chemical Corporation (Occidental Chemical). The proposed facility is designed to vaporize and send out 1.0 billion cubic feet per day (Bcf/d) of vaporized LNG. Ingleside seeks authority under section 3 of the NGA to site, construct, and operate: (1) a LNG receiving terminal; (2) a LNG storage and vaporization facility; and (3) associated utilities, infrastructure, and support systems. More specifically, Ingleside requests authority to site, construct, and operate the following facilities:

LNG Marine Terminal and Transfer Lines:

- (1) a new marine terminal basin connected to the La Quinta Channel that would include a ship maneuvering area and one protected berth to unload up to 140 LNG ships per year with a ship capacity ranging from 71,500 m³ to 250,000 m³ of LNG;²
- (2) four 16-inch diameter stainless steel unloading arms of which two would be dedicated to LNG transfer from the berth facilities to the LNG storage tanks, one which would be dedicated to vapor return service to balance the

¹Ingleside and San Patricio are both subsidiaries of Occidental Energy Ventures Corp., which in turn is a wholly-owned subsidiary of Occidental Petroleum Corporation.

² The estimate of 140 ships assumes the current standard size LNG ship of 140,000 m³.

LNG ship, and which one could be used for either LNG transfer or vapor return service; and

- (3) other controls, safety devices, appurtenances, and accessories.

LNG Storage Facilities:

- (1) two double containment LNG storage tanks each with a nominal working volume of approximately 160,000 m³ (1,006,000 barrels) equivalent to 3.5 Bcf of natural gas;
- (2) three in-tank pumps per LNG storage tank, each capable of discharging 4,756 gallons per minute (gpm); and
- (3) six send-out pumps, each capable of discharging 1,950 gpm.

Vaporization and Gas Processing:

- (1) eight shell and tube vaporizers using a primary closed-loop, water-glycol system heated by waste heat from Occidental Chemical's operations at an adjacent chemical facility;
- (2) a boil-off gas and vapor removal system comprising two vapor return blowers, one boil-off gas compressor, and one boil-off gas condenser;
- (3) two flare systems that would include ground and elevated flares;
- (4) a natural gas liquids recovery facility; and
- (5) on-site metering facilities and other instrumentation and safety systems.

Utilities, Infrastructure, Service Facilities, and Support Systems:

- (1) various support buildings and piping structures at the LNG terminal site including a control building, main firewater pump house, backup firewater pump shelter, jetty control building, compressor enclosure, substation building, and structural pipe racks;
- (2) utilities, infrastructure, and service facilities;
- (3) access roadways and service facilities;
- (4) support systems, including associated hazard detection, control and prevention systems, cryogenic piping and insulation, electrical instrumentation systems; and

- (5) other necessary facilities as further described in Resource Report 13 of Ingleside's application.

5. Ingleside's proposed LNG terminal will have two aspects that are unique, as compared to other LNG terminal proposals. First, Ingleside proposes to include a natural gas liquids recovery unit in the design of the terminal. Ingleside states that this unit will enable the removal of a portion of the higher British thermal unit (Btu) gas components such as ethane, propane, and butane from the gas stream for sale into the liquids market. Ingleside asserts that its ability to remove liquid hydrocarbons will increase the range of LNG sources available to its LNG facility, mitigate gas compatibility problems, provide additional feedstock for the petrochemical industry, and diversify and enhance the project's revenue stream.

6. The other unique aspect of Ingleside's project is the use of waste heat from Occidental Chemical's existing chemical facility to vaporize the LNG. Ingleside estimates that using this source of heat for the vaporization process will conserve about 16,000 MMBtu per day of natural gas that otherwise would have to be burned to generate heat required by the vaporization process, thereby avoiding the release of an estimated 300 tons per year of air emissions associated with LNG regasification. As an additional benefit, Ingleside states that the cold energy supplied by the LNG plant will be used for the cooling needs of the Occidental Chemical plant. Ingleside states that by using the cold energy of the LNG facility to supplant fresh water for cooling the chemical plant will reduce the fresh water consumption at the plant by 2,000,000 gallons per day.

7. The construction and permanent operation of the LNG terminal would affect a total of about 114 acres, 74 acres of land and 40 acres offshore within the La Quinta Channel for the maneuvering area and marine basin.

B. San Patricio's Pipeline Proposal

8. San Patricio proposes to construct and operate a 26.4 mile, 26-inch diameter pipeline extending from the tailgate of Ingleside's LNG terminal in a generally northwest direction to potential interconnections with nine interstate and intrastate pipelines, all located in San Patricio County, Texas. Specifically, San Patricio has identified potential interconnections with Texas Eastern Transmission L.P., Channel Pipeline Company, GulfTerra Pipeline Company, CrossTex Pipeline Company, Kinder Morgan Texas Pipeline Company-Tejas Pipeline, Gulf South Pipeline Company, Natural Gas Pipeline Company of America, Transcontinental Gas Pipe Line Corporation, and Tennessee Gas Pipeline Company. San Patricio states that its proposed pipeline will be able to transport up to 1.0 Bcf per day of natural gas from Ingleside's LNG terminal to the various pipeline interconnections. San Patricio estimates that its proposed facilities will cost approximately \$53,500,000.

9. San Patricio requests a Part 284, subpart G open-access blanket transportation certificate under which it proposes to offer cost-based firm transportation service under Rate Schedule FTS, interruptible transportation service under Rate Schedule ITS, and parking and lending service under Rate Schedule PALS. On September 24, 2004, San Patricio announced an open season for its proposed pipeline. On March 23, 2005, San Patricio executed a precedent agreement with Occidental Energy Marketing, Inc. (Occidental Energy) for firm service for the entire capacity of the pipeline, for a term of 15 years at maximum rates.

10. San Patricio also requests a Part 157 subpart F blanket certificate to perform routine activities in connection with the construction, maintenance, and operation of the proposed facilities.

Notice and Interventions

11. Notice of the applications was published in the *Federal Register* on November 10, 2004 (69 *Fed. Reg.* 61,159). ExxonMobil Gas & Power Marketing Company, a Division of Exxon Mobil Corporation, Sempra Energy LNG, and Transcontinental Gas Pipe Line Corporation (Transco) filed timely motions to intervene. Timely, unopposed motions to intervene are granted by operation of Rule 214 of the Commission's Rules of Practice and Procedure.³

12. Gulf Coast LNG Partners, L.P., Kinder Morgan Texas Pipeline Company-Tejas Pipeline, L.P., Natural Gas Pipeline Company of America, and Project Technical Liaison Associates Inc. filed untimely motions to intervene. The Commission finds that granting these late-filed motions to intervene will not delay, disrupt, or otherwise prejudice this proceeding, or place an additional burden on existing parties. Therefore, for good cause shown, we will grant the late-filed motions to intervene.⁴

13. Transco noted in its intervention that any interconnection between San Patricio facilities will be subject to the terms and conditions of section 20 of the General Terms and Conditions of Transco's FERC Gas Tariff. No protests were filed.

³ 18 C.F.R. § 385.214(a)(3)(2005).

⁴ 18 C.F.R. § 385.214(d) (2005).

Discussion

A. Ingleside's Proposed LNG Terminal

14. Because the proposed LNG terminal facilities will be used to import gas from foreign countries, the construction and operation of the facilities and site of their location require approval by the Commission under NGA section 3.⁵ The Commission's authority over facilities constructed and operated under section 3 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.⁶ Section 3 of the NGA provides that the Commission "shall issue such order on application..." if it finds that the proposal "will not be inconsistent with the public interest."

15. The Commission has chosen to exercise a less intrusive degree of regulation for new LNG import terminals, and does not require the applicant to offer open-access service or to maintain a tariff or rate schedules for its terminalling service.⁷ The Commission, however, reserves the authority under section 3 to take any necessary and appropriate action if it receives complaints of undue discrimination or anticompetitive behavior.

⁵The regulatory functions of section 3 were transferred to the Secretary of Energy in 1977 pursuant to section 301(b) of the Department of Energy Organization Act (Pub. L. No. 95-91, 42 U.S.C. §§7101, *et seq.*). In reference to regulating the imports or exports of natural gas, the Secretary subsequently delegated to the Commission the authority to approve or disapprove the construction and operation of particular facilities, the site at which 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. DOE Delegation Order No. 00-044.00, 67 *Fed. Reg.* 8,946 (2002). However, applications for authority to import natural gas must be submitted to the Department of Energy. The Commission does not authorize importation of the commodity itself.

⁶*Distrigas Corporation v. FPC*, 495 F.2d 1057, 1063-64 (D.C. Cir. 1974), *cert. denied*, 419 U.S. 834 (1974); *Dynegy LNG Production Terminal, L.P.*, 97 FERC ¶ 61,231 (2001).

⁷*See Hackberry LNG Terminal, L.L.C.*, 101 FERC ¶ 61,294 (2002), *order issuing certificates and granting reh'g*, 104 FERC ¶ 61,269 (2003) (*Hackberry*).

16. The Commission recognizes the important role that LNG will play in meeting future demand for natural gas in the United States and has noted that the public interest is served through encouraging gas-on-gas competition by introducing new imported supplies.⁸ The record in this case shows that Ingleside will be a source of such additional supplies of natural gas. Because the project is new, Ingleside has no existing customers who might be adversely affected by the costs or risk of recovery of the costs associated with the proposed LNG terminal. The economic risks will be borne by Ingleside. Further, the environmental conditions set forth in this order will ensure that the adverse environmental impacts will be limited. In view of these considerations, we find that the Ingleside LNG terminal is not inconsistent with the public interest.

B. San Patricio's Proposed Pipeline Facilities

17. Since the proposed pipeline facilities will be used to transport natural gas in interstate commerce subject to the jurisdiction of the Commission, the construction and operation of the facilities are subject to the requirements of subsections (c) and (e) of NGA section 7.

1. The Certificate Policy Statement

18. On September 15, 1999, the Commission issued a Policy Statement providing guidance as to how proposals for certificating new construction will be evaluated.⁹ Specifically, the Policy Statement explains that the Commission, in deciding whether to authorize the construction of new pipeline facilities, balances the public benefits against the potential adverse consequences. Our goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, the avoidance of unnecessary disruptions of the environment and the unneeded exercise of eminent domain in evaluating new pipeline construction.

⁸ *Hackberry*, 101 FERC at P26 (2002).

⁹ *Certification of New Interstate Natural Gas Pipeline Facilities* (Policy Statement), 88 FERC ¶ 61,227 (1999); *Order Clarifying Statement of Policy*, 90 FERC ¶ 61,128 (2000); *Order Further Clarifying Statement of Policy*, 92 FERC ¶ 61,094 (2000).

19. Under this policy, the threshold requirement for existing pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from the existing customers. The next step is to determine whether the applicant has made efforts to eliminate or minimize any adverse effects the project might have on the applicant's existing customers, existing pipelines in the market and their captive customers, or landowners and communities affected by the route of a new pipeline. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, the Commission will evaluate the project by balancing the evidence of public benefits to be achieved against the residual adverse effects. This is essentially an economic test. Only when the benefits outweigh the adverse effects on economic interests will the Commission then proceed to complete the environmental analysis where other interests are considered.

20. San Patricio's proposal satisfies the threshold requirement that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. San Patricio is a new pipeline and has no existing customers. Thus, there is no potential for subsidization by existing customers.

21. San Patricio also meets the remaining criteria for certification of new facilities set forth in the Policy Statement. There will be no adverse effect on existing services because San Patricio has no current customers. The new pipeline should also benefit interconnecting pipelines by providing new sources of gas for them to transport. No existing shippers or pipelines in the area have protested the filing.

22. Only one landowner, Mary Leona Murff, objected to the proposed pipeline route. Her concerns related to land use and compensation are addressed in the final Environmental Impact Statement (EIS). We note that approximately 86.7% of the proposed right-of-way is adjacent to existing utility rights-of-way. As discussed further below, we find that the environmental conditions set forth in this order ensure that there will be limited adverse environmental impacts.

23. The need for the San Patricio project is supported by historical and projected trends in gas demand and supply. Various national and industry organizations that monitor energy consumption trends forecast growing demand for natural gas. Traditional sources of domestically produced gas, however, are in long-term decline. The data shows that forecasted domestic production will be unable to keep pace with demand and that the gap will only widen in the future. It is expected that imports, including LNG, will be necessary to make up the supply gap. The San Patricio project is being developed to provide access to new, competitively priced LNG supplies to meet this growing demand. Based on the benefits San Patricio will provide to the market and the lack of any

identified adverse effect on existing customers, other pipelines, landowners, or communities, we find, consistent with the Policy Statement and NGA section 7, that the public convenience and necessity requires approval of San Patricio's proposal.

2. Rates and Tariff

a. Initial Rates

24. San Patricio proposes to offer cost-based firm (Rate Schedule FTS) and interruptible (Rate Schedules ITS and PALS) open access transportation services on a non-discriminatory basis under Part 284 of the Commission's regulations.¹⁰ San Patricio's proposed cost-based rates reflect a straight fixed-variable (SFV) rate design and are calculated using a 20-year levelized cost-of-service. The annual levelized cost-of-service of the project is \$12,005,061.¹¹

25. The FTS rates are derived using the \$12,005,061 annual cost-of-service and annual FTS reservation billing determinants of 13,482,000 Dth per year (1,123,500 Dth/d times 12 months). The annual FTS usage billing determinants total 410,077,500 Dth per year (1,123,500 Dth/d times 365 days). The proposed maximum cost-based FTS reservation rate is \$.8905 per Dth. San Patricio states that it currently has no variable costs, so the proposed FTS usage rate is \$0 per Dth.

¹⁰ See San Patricio Pipeline LLC's FERC Gas Tariff, *Pro Forma* Original Volume No. 1 (*pro forma* tariff).

¹¹ San Patricio's year 1 proposed levelized cost-of-service consists of \$1,225,563 of operation and maintenance expenses, \$733,649 of administrative and general expenses, \$102,023 of depreciation expenses, \$6,262,764 of return allowance (at 14 percent rate of return on equity), \$727,930 of taxes other than income taxes, \$2,953,131 of federal taxes and state incomes taxes (calculated at tax rates of 35 percent and 2 percent, respectively), for a total cost of service of \$12,005,061. For year 1, San Patricio reflects a proposed rate base comprised of gross plant investment of \$53,468,311 less accumulated depreciation of \$102,023 less accumulated deferred income taxes of \$1,588,132 for a total rate base of \$51,778,156.

26. The ITS rate and the PALS parking and lending service rates are derived at 100 percent load factor of the FTS rate. San Patricio states that its ITS and PALS rates are based on a five percent allocation of costs to interruptible services. The proposed maximum base ITS rate is \$0.0293 per Dth, while the proposed PALS rate is .122 cents per Dth/hour. San Patricio proposes zero for its ACA surcharge and zero percentage for fuel, loss and unaccounted for gas.

27. The Commission has reviewed the proposed cost-of-service and proposed initial rates, and generally finds them reasonable for a new pipeline entity, such as San Patricio, subject to the conditions discussed below.

b. Interruptible Services Revenue Crediting

28. The Commission's policy regarding new interruptible services requires either a 100 percent credit of the interruptible revenues, net of variable costs, to firm and interruptible customers or an allocation of costs and volumes to these services.¹² We find San Patricio's proposal to allocate costs and volumes to interruptible services is consistent with Commission policy.

c. ROE and Capital Structure

29. San Patricio states that arrangements have not been finalized to fund the construction of the proposed project. San Patricio anticipates financing the project permanently using either generally available funds or a combination of generally available and borrowed funds.¹³ San Patricio states that it has imputed an initial capital structure that consists of 30 percent debt and 70 percent equity. San Patricio states that its proposed capitalization is based on the capitalization ratio of its parent, Occidental Petroleum Corporation (Occidental).¹⁴

30. San Patricio proposes a 6.85 percent interest rate for debt based on anticipated capital market conditions. It also proposes a 14 percent rate of return on equity (ROE) and an overall after-tax rate of return of 11.9 percent.

¹² See, e.g., *Maritimes & Northeast Pipeline L.L.C.*, 80 FERC ¶ 61,136 at p. 61,475 (1997), *order on reh'g*, 81 FERC ¶ 61,166 at pp. 61,725-26 (1997).

¹³ See San Patricio's response to March 18, 2005 data request, Question No. 4.

¹⁴ See San Patricio's response to March 18, 2005 data request, Question No. 3.

31. In determining the appropriate ROE, San Patricio states it also considered the return on equity rates approved for other pipelines when it proposed a 14 percent return on equity.¹⁵ For example, San Patricio states that the Commission approved a 14 percent return on equity for Tractebel Calypso Pipeline, LLC and AES Ocean Express LLC. San Patricio also states that it requests a 14 percent ROE in order to be adequately compensated for the risk associated with a newly proposed pipeline which has a sole source of natural gas receipts from a newly proposed LNG terminal owned by Ingleside Energy Center, LLC. Due to its natural gas receipt sole source, San Patricio maintains it is subject to substantial risk and variability in gas transportation and therefore substantial variability in operating income. Additionally, San Patricio states that it is competing in a market with several LNG terminals being proposed in Texas.¹⁶

32. The Commission has approved ROEs for new pipelines up to 14 percent. However, in addition to the business risk facing a new entrant in the market, a central factor relied upon by the Commission in approving ROEs up to 14 percent was the significant financial risk of the pipeline. For example, in the cases cited by San Patricio, the pipelines proposed a capitalization consisting of 70 percent debt.¹⁷ In contrast, San Patricio has proposed to establish its rates based on only a 30 percent debt capitalization. With such a thin debt ratio, everything else being equal, San Patricio will not face the same level of financial risks as any of the new pipelines that have been previously granted a 14 percent ROE. Imputing a capitalization containing such a large equity ratio is more costly to ratepayers, since equity financing is typically more costly than debt financing, and also because the interest on indebtedness is tax deductible.

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *E.g., Tractebel Calypso*, 106 FERC ¶ 61,273 (2004), 103 FERC ¶ 61,106 (2003), *AES Ocean Express, LLC*, 106 FERC ¶ 61,090 (2004), 103 FERC ¶ 61,030 (2003) (approving 14 percent ROE based on 70 percent debt and 30 percent equity ratio).

33. Accordingly, the Commission will approve San Patricio's proposed 14 percent ROE, but will require that it design its cost-based rates on a capital structure comprised of at least 50 percent debt. This finding is consistent with our ROE determinations for recently approved greenfield pipelines related to new LNG projects.¹⁸

d. State Income taxes

34. San Patricio's proposed cost-of-service includes a state income tax allowance calculated using a 2 percent tax rate. However, San Patricio's proposed facilities are to be located within Texas, and the State of Texas does not impose a state corporate income tax. Therefore, we will require San Patricio to remove the state income tax allowance from its rate calculation.

e. Three-Year Filing Requirement

35. Consistent with Commission precedent, the Commission will require San Patricio to file a cost and revenue study at the end of its first three years of actual operation to justify its existing cost-based firm and interruptible recourse rates. In its filing, the projected units of service should be no lower than those upon which San Patricio's approved initial rates are based. The filing must include a cost and revenue study in the form specified in section 154.313 of the regulations to update cost-of-service data. After reviewing the data, we will determine whether to exercise our authority under NGA section 5 to establish just and reasonable rates. In the alternative, in lieu of that future filing, San Patricio may make an NGA section 4 filing to propose alternative rates to be effective no later than three years after the in-service date for its proposed facilities.

f. Pro Forma Tariff Issues

i. Shipper's failure to establish or maintain creditworthiness

36. Section 15(A) of the General Terms and Conditions (GT&C) provides that San Patricio is not required to initiate service to shippers who fail to meet creditworthiness

¹⁸ See, e.g., *Corpus Christi LNG, L.P.*, 111 FERC ¶ 61,081 at P 33 (2005) (approving 14 percent ROE based on 50 percent debt and 50 percent equity ratios).

standards, or to continue service for shippers that have become insolvent or who, at San Patricio's request fail "within a reasonable period" to demonstrate creditworthiness pursuant to San Patricio's standards.

37. Section 15(C)(1) provides that if a shipper fails to establish creditworthiness, the shipper may still receive interruptible service of any duration, or firm service as a replacement shipper through capacity release for a maximum period of up to one month if it provides to San Patricio one of the following: (i) a written guarantee from a creditworthy third party; (ii) an irrevocable standby letter of credit; (iii) an escrow deposit equal to three month's service or the term of service, whichever is less; or (iv) other security.

38. Section 15(C)(2) provides that if a shipper fails to establish creditworthiness, it may still receive firm service, or service as a replacement shipper through released capacity for a period longer than one month, if it maintains in effect (i) a written guarantee from a creditworthy third party; or (ii) an irrevocable standby letter of credit; or (iii) other security acceptable to San Patricio.

39. The tariff does not state when San Patricio will communicate to a potential shipper the results of its creditworthiness determination under section 15(A) and (B), nor does it provide for San Patricio to communicate to the shipper the justification for any denial of creditworthiness. In *Natural*, we held that if a service provider finds a shipper not to be creditworthy, it must communicate that finding in writing, and state the reasons for its finding. We also required that the communication be made within 10 days of the pipeline's determination, and that the shipper be provided recourse to challenge the finding.¹⁹ San Patricio is directed to revise its tariff accordingly.

40. Although section 15(A) states that San Patricio is not required to continue service for a shipper that has become insolvent or non-creditworthy, and section 15(C) enables a shipper to still receive service upon meeting San Patricio's requirements for financial assurance, it is unclear whether San Patricio intends to use suspension of service as an intermediate step to termination under section 15. In addition, section 15(C) does not include a timeline within which a non-creditworthy shipper must provide security to San

¹⁹ *Natural Gas Pipeline Co. of America (Natural)*, 106 FERC ¶ 61,175 at P 80 (2004); *Tennessee Gas Pipeline Co. (Tennessee)*, 103 FERC ¶ 61,275 at P 45 (2003).

Patricio in order to maintain continuous service. The Commission has stated in previous orders that a non-creditworthy shipper must be given a reasonable amount of time to provide security assurances, particularly because the shipper may also have to meet the security requirements of other pipelines.²⁰

41. Accordingly, we direct San Patricio to propose and justify a specific period of time within which a non-creditworthy shipper must comply with the requirements of sections 15(c)(1) and (2) after having received notice from San Patricio that it is no longer deemed creditworthy. In the alternative, consistent with prior orders,²¹ San Patricio may adopt the following approach, which the Commission has found to establish a reasonable balance between a service provider's legitimate need to obtain security and the shipper's need for adequate time to arrange for such security. Depending on the approach it chooses, San Patricio should revise its tariff accordingly.

42. Under the alternative approach, when a shipper loses its creditworthiness status, the shipper must, within five business days, pay for one month of service in advance in order to continue service. This will allow the shipper to have at least thirty days to provide the next three months of security for service in accordance with the requirements of section 15(C)(1) and (2). If the shipper fails to provide the required security within these time periods, San Patricio may suspend service immediately, and may also provide simultaneous written notice that it will terminate service in thirty days if the shipper fails to provide security. (San Patricio is also required to notify the Commission in writing at least thirty days prior to terminating a shipper's service, as required by section 154.602 of the Commission's regulations.)

ii. Financial assurances by non-creditworthy shippers

43. Section 15 of the GT&C describes the security which non-creditworthy shippers must provide to San Patricio in order to receive service. Section 15(C)1 states that in the case of contracts for interruptible service of any duration or firm service obtained through

²⁰ *Gulf South Pipeline System, L.P.*, 103 FERC ¶ 61,129 at P 49 (2003), *reh'g denied*, 107 FERC ¶ 61,273 at P 20 (2004).

²¹ *See Tennessee*, 102 FERC ¶ 61,075 at P 18 (2003).

capacity release for up to one month, the shipper must “furnish and maintain in effect” one of the following: (1) a written guarantee from a creditworthy third party; (2) an irrevocable standby letter of credit; (3) an amount equal to the amount which would be charged to the shipper for three month’s service or the term of the contract, whichever is less, or (4) other security.

44. Section 15(C)2 provides that in the case of contracts for firm service greater than one month, whether or not obtained through capacity release, the shipper must “furnish and maintain in effect” one of the following: (1) a written guarantee from a creditworthy third party; (2) an irrevocable standby letter of credit; or (3) other security acceptable to San Patricio.

45. Since before Order Nos. 436 and 636, the Commission has approved a collateral requirement equal to three months of demand charges as the industry standard.²² In *Natural*,²³ the Commission determined that requiring longer than three months of security is acceptable in precedent agreements for greenfield pipelines and major system expansions, but once the pipeline goes into service, tariff requirements for security must be limited to three months. This limitation applies equally to standby irrevocable letters of credit, collateral security, and a guarantee by a creditworthy entity, or prepayment costs.

46. Therefore, sections 15(C)1 and 2 should be revised to limit any required security to an amount equal to the amount which could be charged to the shipper for three month’s service or term of the contract, whichever is less. Further, San Patricio is directed to revise section 15(C)2 to allow shippers the option of providing collateral in the form of a cash deposit consistent with the Policy Statement for Interstate Natural Gas Pipelines and Order Withdrawing Rulemaking Proceeding.²⁴

²² See *Gulf South*, 107 FERC ¶ 61,273 at n. 38.

²³ See *Natural*, 102 FERC ¶ 61,355 at P 29-30 (2003).

²⁴ See *Policy Statement for Interstate Natural Gas Pipelines and Order Withdrawing Rulemaking Proceeding*, 111 FERC ¶ 61,412 at p 21 (2005).

47. Also, as we held in *Tennessee*,²⁵ shippers that opt to pledge collateral equal to three months of reservation charges under sections 15(c) 1 and 15(c) 2 must have an opportunity to earn interest on such pledges either by San Patricio paying the interest itself at the Commission's interest rate, or by the shipper designating an interest-bearing escrow account to which San Patricio may have access to payments for services provided if needed.

iii. Suspension or termination of service

48. Section 14(F) of the GT&C describes the procedures for San Patricio to suspend or terminate service when a shipper fails to pay its invoice, but fails to address whether a shipper whose service has been suspended will continue to be billed demand charges by San Patricio. In accordance with prior Commission orders,²⁶ we direct San Patricio to revise its tariff to state that shippers will not incur demand charges when their service is suspended.

iv. NAESB standards

49. San Patricio's states that its tariff proposal is consistent with Version 1.6 of the North American Energy Standards Board (NAESB) Standards, and the recommendations of NAESB's Wholesale Gas Quadrant (WGQ) adopted by the Commission in Order No. 587-S.²⁷ On May 9, 2005, the Commission issued Order No. 654 amending its regulations, which among other things, adopted Version 1.7 of the NAESB standards.²⁸

²⁵ 103 FERC ¶ 61,275 at P 21 (2003), *reh'g denied*, 105 FERC ¶ 61,120 at Ps 17-24.

²⁶ *See, e.g., Natural*, 106 FERC ¶ 61,175 at P 53.

²⁷ *Standards for Business Practices of Interstate Natural Gas Pipelines*, Order No. 587-R, 68 *Fed. Reg.* 13,813 (Mar. 21, 2003), FERC Stats. & Regs. ¶ 31,141 (2003) (Order No. 587-R). By Errata Notice issued June 14, 2005, the Commission changed the Order No. to Order No. 587-S.

²⁸ *Standards For Business Practices of Interstate Natural Gas Pipelines*, Order No. 654, 111 FERC ¶ 61,203 (2005) (amending the regulations to incorporate by reference the most recent version of the standards: Version 1.7 of the consensus

(continued)

Therefore, when it files actual tariff sheets in this proceeding, San Patricio is directed to revise its tariff to be compliant with Order No. 654 as modified by any future NAESB requirements then in effect.

v. Scheduling priorities

50. Section 10(A) of the GT&C provides that a shipper nominates by requesting quantities of gas to be received and delivered at specific receipt and delivery points. Section 10(C)(1) states that nominations will be scheduled at “Mainline Capacity and Delivery Points” in the following order of declining priorities:

- (a) FTS service, utilizing primary delivery points, within Maximum Daily Quantity (MDQ) specified in the service agreement.
- (b) FTS service, utilizing alternative delivery points, where if nominations exceed available capacity, then scheduled pro-rata based on confirmed nominations. Provided deliveries at alternative delivery points will not adversely affect scheduled deliveries at primary delivery points within MDQ specified in the service agreement. Provided further that deliveries for shippers with confirmed nominations within the nominating shipper’s primary point MDQ will be scheduled prior to deliveries for shippers with confirmed nominations which are either (i) in excess of nominating shipper’s primary point MDQ or (ii) at a point other than the nominating shipper’s primary delivery point.
- (c) IT service, paying the maximum rate allocated capacity pro-rata. Shippers not paying the maximum IT rate will be scheduled based on price and allocated pro-rata.

standards promulgated December 31, 2003 by the Western Gas Quadrant (WGQ) of the NAESB; the standards ratified by NAESB on June 25, 2004 to implement Order 2004; the standards ratified by NAESB on May 3, 2005 to implement the Order 2004-A; and the standards implementing gas quality requirements ratified by NAESB on October 20, 2004).

- (d) PALS, paying the maximum rate allocated capacity pro-rata. Shippers not paying the maximum IT rate will be scheduled based on price and allocated pro-rata.
- (e) FT nominations exceeding available firm capacity allocated pro-rata.

51. Section 10(C)(2) states that nominations will be scheduled at “Receipt Point Capacity” in the following order of declining priorities:

- (a) FTS service, utilizing primary receipt points.
- (b) FTS service, utilizing alternative receipt points and any OBA payback quantities satisfying section 11(A)(4) requirements, where if nominations exceed available receipt point capacity, then scheduled pro-rata based on confirmed nominations. Provided that firm shipper shall be able to revise receipt point nominations under section 10(A)(2)(a) and 10(A)(2)(b). Transportation from alternative receipt points within the contract path shall have scheduling priority over transportation from alternative receipt points outside the shipper’s contract path.
- (c) IT service, exceeding available receipt point capacity will be scheduled pro-rata based on receipt point nominations.

52. Order No. 637 requires pipelines to schedule nominations of capacity at secondary points within shippers’ contract paths ahead of nominations to secondary points outside the nominating shippers’ contract paths. This “within the path” policy on allocating capacity applies to both receipt points and delivery points.²⁹ Section 10(C)(1) addresses the scheduling priorities for mainline capacity and delivery points, but fails to incorporate the “within the path” language required by Order No. 637 and must be modified consistent with Commission policy.

53. Further, section 10(C)(2) which provides for the scheduling of receipt capacity fails to include the scheduling priority of PALS service. Therefore, San Patricio is required to specify the priority of PALS service in this section of its tariff.

²⁹ See Order No. 637-B, 92 FERC ¶ 61,062 at 61,170 (2000).

54. Finally, section 10(C)(2)(b) provides a scheduling priority for OBA payback quantities arising under section 11 (Determination of Daily and Monthly Receipts) equal to FT service utilizing alternative receipt points. However, OBA underages and overages under section 11 could occur as a result of interruptible transportation service. Such OBA quantities should not be given the same scheduling priority as FT service quantities. Therefore, all OBA quantities associated with interruptible service should be scheduled after all FT services, consistent with Commission policy.

vi. Segmentation

55. Order No. 637 required pipelines to permit a shipper to make use of the firm capacity that it has contracted by segmenting that capacity into separate parts for its own use or for the purpose of releasing that capacity to replacement shippers to the extent such segmentation is operationally feasible.³⁰ Further, in the Order on Remand of Order No. 637, the Commission required pipelines to allow shippers, to the extent operationally feasible, to make segmented transactions consisting of forwardhauls up to the contract demand and backhauls up to contract demand to the same point at the same time.³¹

56. San Patricio's *pro forma* tariff does not provide any segmentation rights to shippers. Accordingly, San Patricio must revise its tariff to permit segmentation on its system consistent with Commission policy.

vii. Force Majeure

57. Section 8(C) describes the various circumstances that San Patricio will consider to be a force majeure event. The text of this definition must be clarified to distinguish

³⁰ 18 C.F.R. § 284.7 (d) (2005).

³¹ 101 FERC ¶ 61,127 (2002).

repairs constituting a force majeure event from planned maintenance. Therefore, San Patricio is directed to add the phrase “unplanned, emergency” between the words “making” and “repairs” in the first sentence.³²

viii. Reservation Charge Credits

58. The Commission requires that pipelines provide full reservation charge credits for all scheduled gas not delivered due to a non-force majeure event and partial reservation charge credits in instances of force majeure.³³

59. San Patricio’s *pro forma* tariff does not provide for reservation charge credits for reductions in service due to either force majeure or non-force majeure events. Accordingly, we direct San Patricio to revise its tariff to provide for reservation charge credits for reductions in service consistent with Commission policy.

ix. Negotiated Rates

60. San Patricio stated in the transmittal letter of its application that it would offer firm and interruptible transportation services and PALS on a self-implementing, non-discriminatory, open access basis, consistent with Commission policies with service available at both recourse and negotiated rates. However, San Patricio did not include any language in its *pro forma* tariff that would authorize it to negotiate rates. In response to a March 18, 2005 staff data request, San Patricio states that while it does not have a present intention to offer service at negotiated rates, but since its intentions may change, it attached as Exhibit SPP-1 certain amendments to the *pro forma* tariff.

³² The Commission has held that an outage due to planned or scheduled maintenance is considered a non-force majeure event. *See, e.g., Natural*, 108 FERC ¶ 61,170, at P 7 (2004).

³³ *See Tennessee Gas Pipeline Co.*, 76 FERC ¶ 61,022 at 61,085-89 (1996) (Opinion No. 406); *order on reh’g*, 80 FERC ¶ 61,070 (1997), (Opinion No. 406-A), *Florida Gas Transmission Co.*, 107 FERC ¶ 61,074 (2003).

61. When it files actual tariff sheets in this proceeding, San Patricio may choose to include modifications to its tariff to authorize it to offer service at negotiated rates consistent with Commission policy.³⁴

x. **Flow Through of Penalties in Excess of Costs**

62. Order No. 637 requires that pipelines must credit to shippers all revenues from all penalties net of cost.³⁵ San Patricio proposes in section 24 of its GT&C to provide for the “flow through to firm shippers any penalties in excess of costs collected pursuant to section 16 (Curtailments and Other Operational Controls) and section 2.7 of Rate Schedule PALS.”

63. The Commission finds that San Patricio’s *pro forma* section 24, concerning penalty revenue crediting, does not fully comply with Order No. 637, which relies on the principle that a pipeline must credit to shippers all revenues from all penalties net of costs. San Patricio proposes to credit these amounts only to firm shippers. The Commission has previously stated that all shippers including interruptible shippers are subject to penalties, and therefore should receive their proportional share of any net penalty revenues.³⁶ The Commission directs San Patricio to revise its GT&C to provide for the crediting of penalty revenues to all shippers, regardless of whether they are firm or interruptible customers.

³⁴ *Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines and Regulation of Negotiated Transportation Services of Natural Gas Pipelines*, 74 FERC ¶ 61,076; *order granting clarification*, 74 FERC ¶ 61,194; *order denying requests for reh'g and clarification*, 75 FERC ¶ 61,024; *order denying reh'g*, 75 FERC ¶ 61,066 (1996); *denying petitions for review, Burlington Resources Oil & Gas Company v. FERC*, 1998 U.S. App. LEXIS 20697 (D.C. Cir. 1998) (court held policy statement not ripe for review).

³⁵ See Order No. 637-A, at pp. 31,609-11. See also *Panhandle Eastern Pipeline Co.*, 97 FERC ¶ 61,046, at 61,274 (2001).

³⁶ See *Trailblazer Pipeline Co.*, 97 FERC ¶ 61,056 (2001); *Paiute Pipeline Co.*, 96 FERC ¶ 61,167 (2001).

xi. Request for waivers

64. San Patricio requests waiver of section 154.109(c) of the Commission regulations which requires a pipeline's tariff to contain a statement of the order in which the company discounts its rates and charges in accordance with Commission policy. San Patricio claims that this requirement is inapplicable because it currently has no categories of discountable charges other than the base rates. San Patricio also asserts that the Commission has granted waiver to other new pipeline projects under similar circumstances.³⁷ We will grant the requested waiver of section 154.109(c) until such time as San Patricio implements additional charges to which the discount policy applies.

65. In Order No. 2004, the Commission adopted Standards of Conduct in Part 358 of its regulations that govern the relationships between Transmission Providers and all of their Marketing and Energy Affiliates.³⁸ In Order No. 2004-B, the Commission clarified that a new pipeline will have a reasonable time (30 days) after it accepts its certificate or otherwise becomes subject to the Commission's jurisdiction (whichever comes first) to come into compliance with the Standards of Conduct.³⁹ San Patricio requests waiver from complying with these requirements until such time as it commences operations. It asserts that due to the small number of start-up employees, compliance with Part 358 will be unworkable prior to the commencement of operations.

66. San Patricio has not provided sufficient information for the Commission to fully evaluate its request for waiver. Therefore, we will deny the instant request without prejudice to San Patricio refiling a separate waiver request in a TS docket. That filing should specifically list each requirement of Part 358 that it seeks waiver from and should provide specific details to support each waiver request.

³⁷ See *Tractebel Calypso Pipeline, LLC*, 103 FERC ¶ 61,106 at 61,336 (2003); *Vector Pipeline, L.P.*, 85 FERC ¶ 61,083 at 61,304 (1998); *Alliance Pipeline, L.P.*, 80 FERC ¶ 61,149 at 61,598 (1997).

³⁸ FERC Stats. and Regs. ¶ 31,155 (2003).

³⁹ FERC Stats. and Regs. ¶ 31,166 at P 236 (2004).

67. The Commission will require San Patricio to file actual tariff sheets and revised rates consistent with the directives in this order within at least 30 days and no more than 60 days prior to the commencement of service.

xi. Miscellaneous

68. San Patricio is directed to make the following tariff revisions when it files actual tariff sheets:

69. In section 14 of the GT&C - Invoicing and Payment (Sheet No. 133), the reference to “GISB Standards” should be changed to “NAESB Standards.”

70. In section 20 of the GT&C - Annual Charge Adjustment (ACA) Clause (Sheet No. 169), the FERC Account No. 428 is incorrect and should be changed to FERC Account No. 928.

71. The PALS rate shown on Sheet No. 4 is .122 cents per Dth/hours. However, section No. 4.1 of the PALS Rate Schedule provides that the PALS rate will be a “Daily Parking Charge.” San Patricio must file revisions to its tariff to conform the PALS Rate Schedule with the stated PALS rate.

72. The Forms of Service Agreements for firm, interruptible and replacement shippers do not appear to provide for including the actual rate or rate formula in the agreements or the Appendices thereto. San Patricio is directed to revise its Forms of Service Agreements to provide for a statement of the actual rates for the respective services.

73. Section 9 of the ITS Service Form of Service Agreement (Sheet No. 502) provides for “Additional Terms and Conditions.” San Patricio is directed to delete section 9 from the ITS Form of Service Agreement and any other references to negotiation of terms and conditions of service which are contained in its other Forms of Service Agreement, since Commission policy does not allow the negotiation of terms and conditions of service.⁴⁰

⁴⁰ 74 FERC ¶ 61,076 at 61,242 (1996).

74. The Table of Contents of the tariff states that Section 22 - Interruptible Transportation Revenue Crediting and (Sheet No. 171) are reserved for interruptible revenue crediting tariff language, but left blank. Since, San Patricio is allocating costs for interruptible services, it should remove any reference to interruptible revenue crediting in its tariff.

3. Accounting

a. Book Depreciation Rate

75. For financial accounting purposes, San Patricio proposes a straight-line depreciation rate of five percent (5%) per annum based upon a 20 year life. San Patricio's use of straight-line depreciation is consistent with the Commission's Uniform System of Accounts (USofA), because it is a systematic and rational depreciation method. Therefore, the Commission approves the use of five percent (5%) depreciation rate for San Patricio.

b. Levelized Cost-of-Service Rate

76. San Patricio proposes a levelized cost-of-service over 20 years for recourse rates. The rate levelization is achieved by varying its depreciation expense for rate purposes to recover 100 percent of its investment over the 20 years. San Patricio's depreciation rates will vary from 0.19 percent in year one, increasing to 13.99 percent in year 20.⁴¹ In a data response, San Patricio explained it intends to defer the difference between its five percent (5%) straight-line depreciation amount and its variable depreciation amount as a regulatory asset, by debiting Account 182.3, Other Regulatory Assets, with an offsetting entry to Account 407.3, Regulatory Debits, or Account 407.4, Regulatory Credits.⁴²

77. The instructions to Account 182.3 provide in part that this account shall include specific expenses that would be included in net income determinations in one period under the general requirements of the USofA but for it being probable that such expenses

⁴¹See Exhibit O in the application.

⁴²See San Patricio's data response No. 8 filed on March 28, 2005.

will be included in a different period for purposes of developing rates.⁴³ The term “probable” as used refers to that which can reasonably be expected or believed on the basis of available evidence or logic but is neither certain nor proved.⁴⁴ It would be appropriate for San Patricio to record a regulatory asset for the under-recovery of its levelized cost-of-service only if it is probable that San Patricio will recover the costs in future rates.

78. San Patricio’s rate levelization proposal does not meet the probability requirement to record a regulatory asset because the Commission has limited the amount that can be recorded as a regulatory asset to those amounts that would be recovered under the term of the pipeline’s shipper contracts.⁴⁵ San Patricio’s precedent agreement executed with Occidental Energy, an affiliate, is for a primary term of 15 years. However, San Patricio’s rate levelization plan which covers a twenty year period would leave a substantial portion of the balance of the regulatory asset unrecovered at the end of the 15 year contract term with Occidental Energy. Therefore, the Commission will not permit San Patricio to record a regulatory asset under its rate levelization plan.

c. Allowance for Funds Used During Construction (AFUDC)

79. An allowance for funds used during construction (AFUDC) is a component part of the cost of constructing San Patricio’s facilities. Gas Plant Instruction 3(17)⁴⁶ prescribes a formula for determining the maximum amount of AFUDC that may be capitalized as a component of construction cost. That formula, however, is not applicable here, as it uses

⁴³See 18 C.F.R. Part 201 (2005).

⁴⁴See *Revisions to Uniform System of Accounts to Account for Allowances under the Clean Air Amendments of 1990 and Regulatory-Created Assets and Liabilities and to Form Nos. 1, 1-F, 2 and 2-A*, FERC Stats. & Regs., Regulations Preambles (January 1991 – June 1996) ¶ 30,967 (1993) (Order No. 552).

⁴⁵ See *Questar Southern Trails Pipeline Company*, 89 FERC ¶ 61,050 (1999)

⁴⁶18 CFR Part 201.

prior year book balances and cost rates of borrowed and other capital that either do not exist or could produce inappropriate results for initial construction projects of newly created entities such as San Patricio.

80. San Patricio proposes to capitalize \$2,838,786 of AFUDC. San Patricio calculated its estimated AFUDC based on a 70 percent equity and 30 percent debt capital structure, using an equity rate of 14 percent and 6.85 percent debt rate.⁴⁷ Additionally, San Patricio compounded AFUDC on a monthly basis.

81. In similar cases involving newly created entities, the Commission required the applicant to limit its AFUDC rate to a rate no higher than it could earn on operating assets. San Patricio's proposal is consistent with this methodology but should be modified to reflect the capital structure and capital cost rates approved herein. Further, since cash outlays for interest and dividends are not normally made on a monthly basis, San Patricio is only allowed to compound AFUDC on a semi-annual basis rather than a monthly basis.⁴⁸ Accordingly, San Patricio must modify its AFUDC estimate to reflect the compounding of AFUDC on only a semi-annual basis.

82. San Patricio should also revise its AFUDC methodology to ensure that its actual maximum AFUDC rate for the entire construction period is no higher than the overall rate of return underlying its recourse rates. Additionally, San Patricio must use its actual cost of debt (short-term and long-term) in the determination of its AFUDC rate, if it results in an AFUDC rate lower than the overall rate of return underlying its recourse rates. Finally, San Patricio must revise its procedures to ensure that actual AFUDC capitalized is compounded only on a semi-annual basis as discussed above.

C. Environmental

83. Commission staff issued a draft EIS addressing Ingleside's and San Patricio's proposals (collectively, Ingleside Energy Center project) on February 24, 2005. Commission staff issued the final EIS on June 10, 2005. The United States Environmental Protection Agency (EPA) prepared a *Notice of Availability of the Final*

⁴⁷See San Patricio's data response No. 5 filed on March 28, 2005.

⁴⁸Order No. 561, 57 FPC 608 (1977).

Environmental Impact Statement for the Proposed Ingleside Energy Center LNG Terminal and Pipeline Project, dated June 17, 2005. The draft and final EIS were mailed to federal, state, and local agencies, elected officials, Native American tribes, newspapers, public libraries, intervenors in this proceeding, and other interested parties (*i.e.*, landowners, other individuals, and environmental groups who provided scoping comments). The final EIS addresses the issues, concerns, and comments raised in response to the draft EIS. The final EIS also addresses: marine resources; geologic resources and hazards; soils and sediments; water resources; fishery resources, benthic communities, and wildlife; vegetation communities; endangered and threatened species; land use, recreation, and visual resources; cultural resources; socioeconomics; air quality and noise; reliability and safety; cumulative impacts; and alternatives to the proposed facilities.

84. The National Marine Fisheries Service of the National Oceanic and Atmospheric Administration (NOAA Fisheries) served as a cooperating agency in the preparation of the NEPA documentation for the Ingleside Energy Center project and also filed comments on June 28, 2005 and July 12, 2005 on the final EIS.

85. NOAA Fisheries concluded in its June 28, 2005 letter that listed species are not likely to be adversely affected by this project. The letter also concluded the Commission's consultation responsibilities with NOAA Fisheries under section 7 of the Endangered Species Act for the Ingleside Energy Center project. In its July 12, 2005 letter, NOAA Fisheries stated that Ingleside's proposed mitigation plan would provide environmental values adequate to offset the adverse impacts to essential fish habitat (EFH) that would occur as a result of the proposed LNG terminal. The letter concluded the Commission's consultation responsibilities with NOAA Fisheries under section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act and stated that no further EFH consultation is required.

86. The final EIS concludes that construction and operation of the proposed project will result in limited adverse environmental impact. As part of the analysis in the final EIS, specific mitigation measures are developed for the construction and operation of the proposed facilities, including a program of environmental inspection and monitoring that is designed to contain most of the impact within the project vicinity and to ensure compliance with certificate and permit requirements. The final EIS concludes that these measures will substantially reduce any environmental impact and further concludes that if this project is constructed and operated in accordance with these mitigation measures, it will be an environmentally acceptable action. The Commission adopts the findings and conclusion of the final EIS.

87. The U.S. Department of the Interior Fish and Wildlife Service (FWS) served as a cooperating agency in the preparation of the NEPA documentation for the Ingleside Energy Center project and also filed comments on July 7, 2005 on the final EIS.

88. The FWS stated that as a proposed, Ingleside's wetland mitigation plan is incomplete. The letter included several recommendations for Ingleside to include in its final mitigation plan. Commission staff recognizes that an approved final mitigation plan is essential to resolving concerns for the Ingleside Energy Center project. Consequently, Environmental Condition No. 17 has been included to address these concerns.

89. In addition, the FWS concurs with Commission staff's determination that the Ingleside Energy Center project may affect but is not likely to adversely affect any federally listed threatened or endangered species. The letter concludes Commission staff's informal section 7 consultation with the FWS.

90. The Coast Guard cooperated in the preparation of the EIS and plays an important role with regard to maritime issues. With regard to vessel transit to and from the Ingleside Energy Center LNG receiving facility, the Coast Guard has identified no constraints. Further, at this time no outstanding safety and security issues have been identified.

91. On June 14, 2005, the Coast Guard issued a *Navigation and Vessel Inspection Circular – Guidance on Assessing the Suitability of a Waterway for Liquefied Natural Gas Marine Traffic* (NVIC). The purpose of this NVIC is to provide Coast Guard Captains of the Port (COTP)/Federal Maritime Security Coordinators (FMSC), members of the LNG industry, and port stakeholders with guidance on assessing the suitability and security of a waterway for LNG marine traffic. It provides specific guidance on the timing and scope of the waterway suitability assessment (WSA), which will address both safety and security of the port, the facility, and the vessels transporting the LNG. Preparation of this guidance was referenced in the Coast Guard's March 18, 2005 *Report to Congress on Liquefied Natural Gas Terminals*.

92. The WSA process addresses the transportation of LNG from an LNG tanker's entrance into U.S. territorial waters, through its transit to and from the LNG receiving facility, and includes operations at the vessel/facility interface. In addition, the WSA addresses the navigational safety issues and port security issues introduced by the proposed LNG operations. The Coast Guard's report on the WSA identifies the relevant safety and security issues from the broad viewpoint of impact on the entire port, as well as provides a detailed review of specific points of concern along the LNG tanker's proposed transit route. The WSA will be reviewed on an annual basis and updated as needed until the facility is placed in service.

93. To facilitate implementation of the guidelines presented in the NVIC, Commission staff will continue working with the COTP Corpus Christi and determine how the guidance should be followed by Ingleside and/or San Patricio, as appropriate.

94. A review of port security issues, as identified in the NVIC, will be completed by the Coast Guard. Therefore, we have required that Ingleside shall submit a draft WSA to the cognizant COTP/FMSC for review and validation and provide a copy to Commission staff.

95. Once the draft WSA is submitted, the Coast Guard NVIC process will be implemented by the cognizant COTP, as appropriate, and the Coast Guard will submit a WSA report to FERC. The findings of this report will be reviewed by the Director of OEP and implemented by Ingleside. To ensure that these measures are funded, we require that:

Concurrent with the filing of the WSA, Ingleside shall provide a comprehensive plan identifying the mechanisms for funding all project-specific security/emergency management costs that would be imposed on state and local agencies. In addition to the funding of direct transit-related security/emergency management costs, this comprehensive plan should include funding mechanisms for the capital costs associated with any necessary security/emergency management equipment and personnel base. This plan should be filed with the Secretary for review and approval by the Director of OEP.

96. We also recognize that the initial assessment would be prepared well before import operations would commence, and that the port's overall operation/security picture may change over that time period. New port activities may commence, infrastructure may be added, or population density may change. Improvements in technology to detect, deter, and defend against intentional acts may also develop. Therefore, we have required that Ingleside shall annually review its WSA for the project; update the assessment to reflect changing conditions; provide the updated assessment to the cognizant COTP/FMSC for review and validation; and provide a copy to the FERC staff.

97. We have reviewed the information and analysis contained in the final EIS regarding the potential environmental effects of the project. Based on our consideration of this information, we agree with the conclusions presented in the final EIS and find that the Ingleside Energy Center project is environmentally acceptable, if the project is constructed and operated in accordance with the conditions discussed above and the EIS's other recommended environmental mitigation measures in the Appendix to this

order. Thus, we are including the environmental mitigation measures recommended in the final EIS as conditions to the authorizations granted by this order for the Ingleside Energy Center project.

98. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this certificate. We encourage cooperation between interstate pipelines and local authorities. This does not mean, however, that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.⁴⁹

99. Ingleside and/or San Patricio shall notify the Commission's environmental staff by telephone or facsimile of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Ingleside and/or San Patricio. They shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

Conclusion

100. For the reasons set forth herein, and subject to the conditions set forth below, we find that granting authorization under section 3 of the NGA for Ingleside's proposed LNG import terminal is in the public interest. We further find, also subject to the conditions below, that the public convenience and necessity require issuance of a certificate under section 7(c) of the NGA for San Patricio's proposed pipeline facilities. Thus, we grant the requested authorizations to Ingleside and San Patricio.

101. At a hearing held on July 21, 2005, the Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application and exhibits thereto, submitted in support of the authorizations sought herein, and upon consideration of the record.

⁴⁹See, 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.*, 52 FERC ¶ 61,091 (1990) and 59 FERC ¶ 61,094 (1992).

The Commission Orders:

(A) In Docket No. CP05-13-000, Ingleside is hereby authorized under section 3 of the NGA to site, construct, and operate its LNG terminal facility in San Patricio County, Texas, as more fully described in this order and in the application.

(B) In Docket No. CP05-11-000, a certificate of public convenience and necessity is issued to San Patricio under section 7(c) of the NGA authorizing it to construct and operate its proposed pipeline facilities, as more fully described in this order and in the application.

(C) The authorizations in the above paragraphs are conditioned upon Ingleside and/or San Patricio, as applicable:

- (1) placing the proposed facilities in service within three years of the final order;
- (2) complying with all regulations under the NGA including but not limited to, Parts 154 and 284, and paragraphs (a), (c), (e), and (f) of section 157.20 of the Commission's regulations;
- (3) making a tariff filing no later than 60 days prior to commencement of service to place the rates approved herein into effect, including the redlined tariff sheets reflecting how its actual tariff filing differs from its *pro forma* filing;
- (4) complying with the specific environmental conditions listed in Appendix A of this order.

(D) San Patricio must execute firm contracts equal to the level of service and in accordance with the terms of service represented in its precedent agreement prior to commencement of construction.

(E) In Docket No. CP05-12-000, a blanket construction certificate is issued to San Patricio under Subpart F of Part 157 of the Commission's regulations.

(F) In Docket No. CP05-14-000, a blanket transportation certificate is issued to San Patricio under Subpart G of Part 284 of the Commission's regulations.

(G) Within three years after its in-service date, as discussed herein, San Patricio must make a filing to justify its existing cost-based firm and interruptible recourse rates. In its filing, the projected units of service should be no lower than those upon which San Patricio's approved initial rates are based. The cost and revenue study must be in the form specified in section 154.313 of the regulations to update cost-of-service data. In the

alternative, in lieu of this filing, San Patricio may make an NGA section 4 filing to propose alternative rates to be effective no later than 3 years after the in-service date for its proposed facilities.

(H) San Patricio shall adhere to the accounting requirements set forth in the body of this order.

(I) Ingleside and San Patricio shall notify the Commission's environmental staff by telephone or facsimile of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies either Ingleside or San Patricio. Ingleside or San Patricio shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

By the Commission.

(S E A L)

Magalie R. Salas,
Secretary.

APPENDIX

Environmental Conditions

1. Ingleside Energy Center, LLC and San Patricio Pipeline, LLC⁵⁰ shall follow the construction procedures and mitigation measures described in its application, supplemental filings (including responses to staff data requests), and as identified in this Environmental Impact Statement (EIS), unless modified by this Order. Ingleside San Patricio must:
 - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);
 - b. justify each modification relative to site-specific conditions;
 - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
 - d. receive approval in writing from the Director of the Office of Energy Projects (OEP) **before using that modification.**

2. For pipeline facilities, the Director of OEP has delegated authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the Project. This authority shall allow:
 - a. the modification of conditions of the Commission's Order; and
 - b. the design and implementation of any additional measures deemed necessary (including stop work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from project construction and operation.

⁵⁰ Hereafter, Ingleside Energy Center is used in measures applicable to Ingleside Energy Center, LLC, San Patricio Pipeline is used in measures applicable to San Patricio Pipeline, LLC, and Ingleside San Patricio is used in measures applicable to both Ingleside Energy Center, LLC and San Patricio Pipeline, LLC.

3. For LNG facilities, the Director of OEP has delegated authority to take all steps necessary to ensure the protection of life, health, property, and the environment during construction and operation of the 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 this Order.
4. **Prior to any construction**, Ingleside San Patricio 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.
5. The authorized facility locations shall be as shown in the EIS, as supplemented by filed alignment sheets, and shall include all of the staff's recommended facility locations. **As soon as they are available, and before the start of construction**, Ingleside San Patricio shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by this Order. All requests for modifications of environmental conditions of this Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.
6. Ingleside San Patricio shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, and documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP **before construction in or near that area**.

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

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

- a. implementation of cultural resources mitigation measures;
- b. implementation of endangered, threatened, or special concern species mitigation measures;
- c. recommendations by state regulatory authorities; and
- d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.

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

- a. how Ingleside San Patricio 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 on-site construction and inspection personnel;
- b. the number of environmental inspectors assigned per spread, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
- c. company personnel, including environmental inspectors and contractors, who will receive copies of the appropriate material;
- d. the training and instructions Ingleside San Patricio will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change), with the opportunity for OEP staff to participate in the training session(s);
- e. the company personnel (if known) and the specific portion of Ingleside San Patricio's organization having responsibility for compliance;
- f. the procedures (including use of contract penalties) Ingleside San Patricio will follow if noncompliance occurs; and
- g. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
 - (1) the completion of all required surveys and reports;
 - (2) the mitigation training of on-site personnel;
 - (3) the start of construction; and
 - (4) the start and completion of restoration.

8. Ingleside San Patricio shall develop and implement an environmental complaint resolution procedure. The procedure shall provide landowners with clear and

simple directions for identifying and resolving their environmental mitigation problems/concerns during construction of the Project and restoration of the right-of-way. **Prior to construction**, Ingleside San Patricio shall mail the complaint procedures to each landowner whose property would be crossed by the Project and to those landowners whose property is within ½ mile of the LNG terminal site.

- a. In its letter to affected landowners, Ingleside San Patricio shall:
 - (1) provide a local contact that the landowners shall call first with their concerns; the letter shall indicate how soon a landowner shall expect a response;
 - (2) instruct the landowners that, if they are not satisfied with the response, they shall call Ingleside San Patricio's Hotline; the letter shall indicate how soon to expect a response; and
 - (3) instruct the landowners that, if they are still not satisfied with the response from Ingleside San Patricio's Hotline, they shall contact the Commission's Enforcement Hotline at (888) 889-8030.
 - b. In addition, Ingleside San Patricio shall include in its status reports a copy of a table that contains the following information for each problem/concern:
 - (1) the date of the call;
 - (2) the identification number from the certificated alignment sheets of the affected property;
 - (3) the description of the problem/concern; and
 - (4) an explanation of how and when the problem was resolved, will be resolved, or why it has not been resolved.
9. Ingleside San Patricio shall employ a team of environmental inspectors. The environmental inspectors shall be:
- a. responsible for monitoring and ensuring compliance with all mitigation measures required by this Order and other grants, permits, certificates, or other authorizing documents;
 - b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 7 above) and any other authorizing document;
 - c. empowered to order correction of acts that violate the environmental conditions of this Order, and any other authorizing document;
 - d. a full-time position, separate from all other activity inspectors;

- e. responsible for documenting compliance with the environmental conditions of this Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
 - f. responsible for maintaining status reports.
10. San Patricio Pipeline shall file updated status reports prepared by the environmental inspectors with the Secretary on a weekly basis **until all construction and restoration activities are complete**. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
 - a. the current construction status of the project, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally sensitive areas;
 - b. a listing of all problems encountered and each instance of noncompliance observed by the environmental inspectors during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);
 - c. corrective actions implemented in response to all instances of noncompliance, and their cost;
 - d. the effectiveness of all corrective actions implemented;
 - e. a description of any landowner/resident complaints which may relate to compliance with the requirements of this Order, and the measures taken to satisfy their concerns; and
 - f. copies of any correspondence received by San Patricio Pipeline from other federal, state or local permitting agencies concerning instances of noncompliance, and San Patricio Pipeline's response.
11. Ingleside San Patricio must receive written authorization from the Director of OEP **before commencing service of the Project**. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way and other areas affected by the project are proceeding satisfactorily.
12. **Within 30 days of placing the certificated facilities in service**, Ingleside San Patricio shall file an affirmative statement with the Secretary, certified by a senior company official:
 - a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or

- b. identifying which of the certificate conditions Ingleside San Patricio has complied with or will comply with. This statement shall also identify any areas affected by the Project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
13. Ingleside Energy Center shall include in its Dredge Disposal Plan the final placement location, the routes of dredge slurry pipes and access roads, and the location/design of outfall structures. This plan shall be filed with the Secretary **prior to the start of dredging operations.** *EIS section 2.4.1.2*
14. Ingleside Energy Center shall file with the Secretary details of its coordination with the City of Port Aransas, and other local, state, or federal government entities, regarding its planned or potential assistance with ongoing or future shoreline protection efforts **prior to construction of the marine terminal.** *EIS section 4.2.3*
15. Ingleside Energy Center shall develop an Offshore Spill Prevention, Control and Countermeasures (SPCC) Plan to include procedures that would be implemented should spills of oil, gas, lubricants, or other hazardous materials occur during construction and operation of the marine terminal. In addition to addressing emergency spill response and clean-up procedures, this plan shall include a description of general spill prevention measures such as material handling practices, personnel training, and inspection. The offshore SPCC Plan shall be filed with the Secretary for review and approval by the Director of OEP **prior to initial site preparation at the LNG terminal.** *EIS section 4.3.1*
16. Ingleside Energy Center shall conduct post-construction surveys of seagrass beds adjacent to the areas that would be dredged and file a report that compares the results of the pre- and post-construction seagrass surveys with the Secretary **within 90 days** of completing dredging and dredge material placement. If secondary impacts to these areas are observed, Ingleside Energy Center shall consult with resource and regulatory agencies to develop additional mitigation measures as necessary. *EIS section 4.4.1*
17. Ingleside Energy Center shall continue its consultation with the U.S. Army Corps of Engineers (COE), U.S. Environmental Protection Agency (EPA), U.S. Department of the Interior, Fish and Wildlife Service (FWS), Texas Parks and Wildlife Department (TPWD), the Texas General Land Office (TGLO), National Oceanic and Atmospheric Administration Fisheries Service (NOAA Fisheries), and the Coastal Bays and Estuaries Program (CBBEP) to further develop its Wetland Mitigation Plan. **Prior to construction of the LNG terminal,** Ingleside

- Energy Center shall file its final plan with the Secretary for review and written approval by the Director of OEP. *EIS section 4.4.1*
18. San Patricio Pipeline shall attempt to avoid the removal of mature trees along the pipeline right-of-way with a diameter at breast height greater than 12 inches. If such trees must be removed, San Patricio Pipeline shall prepare a mitigation plan, in consultation with the TPWD, and file the plan with the Secretary **prior to construction of the pipeline.** *EIS section 4.4.2*
 19. San Patricio Pipeline shall consult with the TPWD and the Natural Resources Conservation Service to develop a seed mix that includes native grass species. San Patricio Pipeline shall file the final seed mix specifications with the Secretary, **prior to construction of the pipeline.** *EIS section 4.4.2*
 20. If an active migratory bird nest is found along the construction right-of-way, San Patricio Pipeline shall consult with the FWS to identify the most appropriate measure that shall be taken to avoid or minimize impacts. *EIS section 4.5.3.6*
 21. Ingleside Energy Center shall provide training for all personnel involved in construction and operation of the LNG terminal on measures to avoid potential impacts to the West Indian manatee, **prior to initial site preparation at the LNG terminal.** This training shall include:
 - a. information advising that manatees may be found in La Quinta Channel;
 - b. materials, such as a poster, to assist in identifying the mammal;
 - c. instructions not to feed or water the animal; and
 - d. directions to call the Corpus Christi Ecological Services Field Office of the FWS in the event that a manatee is sighted in or near the Project area. *EIS section 4.6.1.1*
 22. During the wintering months (August through April) for piping plovers, Ingleside Energy Center shall have a biologist on-site during construction in tidal flats to assist employees in avoiding any impacts to piping plovers during construction of the LNG terminal. *EIS section 4.6.1.2*
 23. Any activities at the mitigation site shall be conducted outside of the piping plover wintering season (August through April) and during the summer months (May through July) when piping plovers are not present.
 24. Ingleside Energy Center shall prepare a plan, consistent with NOAA Fisheries recommendations, to minimize potential impacts on sea turtles and marine mammals from driving piles during construction of the marine terminal. The plan shall include measures to reduce sound transmission into the water (*e.g.*, air

bubble curtains, limitations on the type of hammer used, reductions in force applied to the pile) or a monitoring protocol to ensure listed species are not present in the zone of potential affect. The plan shall be approved by NOAA Fisheries, and filed with the Secretary for review and written approval by the Director of OEP **prior to construction of the marine terminal.** *EIS section 4.6.1.3*

25. Ingleside San Patricio shall not begin construction of the pipeline or LNG terminal until:
 - a. Ingleside San Patricio conducts a threatened and endangered species survey along portions of the construction right-of-way where access has been denied and files an amended field survey with the FWS and the Secretary;
 - b. the staff completes any necessary formal consultation with FWS and NOAA Fisheries, if required; and
 - c. Ingleside San Patricio has received written notification from the Director of OEP that construction and/or implementation of conservation measures may begin. *EIS section 4.6.3*
26. If facilities are not constructed **within one year** from the date of issuance of the authorization from the Director of OEP that construction may begin, Ingleside San Patricio shall consult with the appropriate offices of FWS and NOAA Fisheries to verify that previous consultations and determinations of effect are still current. *EIS section 4.6.3*
27. Ingleside Energy Center shall not begin construction of its LNG terminal until it files with the Secretary a copy of the consistency determination issued by the Railroad Commission of Texas. *EIS section 4.7.5*
28. San Patricio Pipeline shall **defer construction** and use of its proposed pipeline facilities, including related ancillary areas for staging, storage, and temporary work areas, and new or to-be-improved access roads, **until**:
 - a. San Patricio Pipeline files with the Secretary all additional required inventory and evaluation reports, and any necessary treatment plans;
 - b. San Patricio Pipeline files the State Historic Preservation Office (SHPO) comments on all cultural resources investigation reports and plans;
 - c. the Advisory Council on Historic Preservation (ACHP) has been given an opportunity to comment if any historic properties would be adversely effected by the Project; and
 - d. the Director of OEP reviews and approves all cultural resources reports and plans, and notifies San Patricio Pipeline in writing that it may proceed with treatment or construction.

All material filed with the Commission containing location, character, and ownership information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: **“CONTAINS PRIVILEGED INFORMATION – DO NOT RELEASE.”** *EIS section 4.10.4*

29. Ingleside Energy Center shall make all reasonable efforts to assure its predicted noise levels from the LNG terminal are not exceeded at the NSAs and file noise surveys showing this with the Secretary **no later than 60 days** after placing the LNG terminal in service. However, if the noise attributable to the operation of the LNG terminal exceeds 55 dBA L_{dn} at an NSA, Ingleside Energy Center shall file a report on what changes are needed and shall install additional noise controls to meet the level **within one year** of the in-service date. Ingleside Energy Center shall confirm compliance with these requirements by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls. *EIS section 4.11.2.1*
30. Ingleside Energy Center shall evaluate the need for additional dredging, and the quantity of dredging that would be required, to accommodate the maneuvering of LNG vessels up to 254,000 m³ capacity through the Corpus Christi and La Quinta Channels. This study shall be done in consultation with the COE, Coast Guard, and the Aransas Corpus Christi Pilots Association. Ingleside Energy Center shall file the results of this evaluation with the Secretary for the review and approval of the Director of OEP **prior to the use of LNG ships over 140,000 m³ in capacity.** *EIS section 4.12.5.1*
31. Ingleside Energy Center shall submit a waterway suitability assessment (WSA) to the cognizant Captain of the Port/Federal Maritime Security Coordinator for review and validation and provide a copy to the FERC staff. *EIS section 4.12.5.2*
32. Concurrent with the filing of the WSA, Ingleside Energy Center shall provide a comprehensive plan identifying the mechanisms for funding all project-specific security/emergency management costs that would be imposed on state and local agencies. In addition to the funding of direct transit-related security/emergency management costs, this comprehensive plan should include funding mechanisms for the capital costs associated with any necessary security/emergency management equipment and personnel base. This plan should be filed with the Secretary for review and approval by the Director of OEP.
33. Ingleside Energy Center shall annually review its WSA for the project; update the assessment to reflect changing conditions; provide the updated assessment to the cognizant Captain of the Port/Federal Maritime Security Coordinator for review and validation; and provide a copy to the FERC staff. *EIS section 4.12.5.2*

The following measures shall apply to the LNG terminal design and construction details. Information pertaining to these specific recommendations (recommendations 34 through 73) 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 recommendation. This information shall be submitted a minimum of 30 days before approval to proceed is required.

34. A complete plan and list of the hazard detection equipment shall be filed **prior to initial site preparation**. The information shall include a list with 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. *EIS section 4.12.2*
35. Ingleside Energy Center shall provide a technical review of its facility design that:
 - a. Identifies all combustion/ventilation air intake equipment and the distance(s) to any possible hydrocarbon release (LNG, flammable refrigerants, flammable liquids, and flammable gases).
 - b. Demonstrates that these areas would be adequately covered by hazard detection devices and indicate how these devices would isolate or shutdown any combustion equipment whose continued operation could add to or sustain an emergency.

Ingleside Energy Center shall file this review **prior to initial site preparation**.
EIS section 4.12.2

36. A complete plan and list of the fixed and wheeled dry-chemical, fire extinguishing, high expansion foam, hazard control equipment shall be filed **prior to initial site preparation**. The information shall include a list with 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. *EIS section 4.12.2*
37. The design of the Bottle-Up Vessel and system shall be re-evaluated for process design, pressure and volume containment under all conditions and the proposed design basis and design filed **prior to initial site preparation**. *EIS section 4.12.2*
38. Ingleside Energy Center shall either provide revised vapor dispersion calculations based on the main LNG impoundment configuration with both concrete walls and an insulating perlite concrete floor or specify a different impoundment configuration. This information shall be filed with the Secretary 30 days **prior to**

initial site preparation for review and approval by the Director of OEP.

Alternatively, Ingleside Energy Center may provide evidence of its ability to exercise legal control of the activities that occur with the portions of the vapor dispersion exclusion zone shown to fall outside of the site property line. *EIS section 4.12.4*

39. Ingleside Energy Center shall examine provisions to retain any vapor produced along the transfer line trenches and other areas serving to direct LNG spills to associated impoundments. Measures to be considered may include, but are not limited to: vapor fencing; intermediate sump locations; or trench surface area reduction. Ingleside Energy Center shall file final drawings and specifications for these measures with the Secretary 30 days **prior to initial site preparation** for review and approval by the Director of OEP. *EIS section 4.12.4*
40. Ingleside Energy Center shall develop emergency evacuation routes/methods for the areas along the route of the LNG vessel transit in conjunction with the local emergency planning groups and town officials and file the routes/methods with the Secretary for review and written approval by the Director or OEP **prior to initial site preparation**. *EIS section 4.12.5*
41. **Prior to initial site preparation**, Ingleside Energy Center shall demonstrate that suitable procedures and coordination exist between Ingleside Energy Center, the Pilots, and the TDOT to minimize delays to ferry operations from LNG carrier transits. *EIS section 4.12.5.3*
42. The **final design** of the hazard detection equipment shall identify manufacturer and model. *EIS section 4.12.2*
43. The **final design** of the hazard detection equipment shall include redundancy and fault detection and fault alarm monitoring in all potentially hazardous areas and enclosures. *EIS section 4.12.2*
44. The **final design** shall specify that open path detectors shall be calibrated to detect the presence of flammable gas and alarm at the lowest reliable set point, in addition to the required 25 percent LEL set point. *EIS section 4.12.2*
45. The **final design** of the fixed and wheeled dry-chemical, fire extinguishing, high expansion foam hazard control equipment shall identify manufacturer and model. *EIS section 4.12.2*

46. The **final design** shall include equipment and instrumentation for the measurement of translational and rotational movement of the inner vessel for use during and after cool down. *EIS section 4.12.2*
47. The **final design** shall include details of the boil-off gas flow measurement system provided for each tank. *EIS section 4.12.2*
48. The **final design** shall include details of the LNG flow measurement system provided for the top and bottom fill to each tank. *EIS section 4.12.2*
49. The **final design** shall include a reliable measurement system to monitor deflections during the hydraulic test. At a minimum, this system shall include two slope indicator ducts which bisect the tank in mutually perpendicular directions, monitoring points at the terminals of these ducts, and other monitoring points along the perimeter of the concrete shell, so that sag, warping, tilt, and settlement can be monitored. Tolerances for sag, tilt, and shell warping shall meet or exceed the limits specified by the tank manufacturer. *EIS section 4.12.2*
50. The **final design** shall include details of the LNG tank tilt settlement and differential settlement limits between each LNG tank and piping and procedures to be implemented in the event that limits are exceeded. *EIS section 4.12.2*
51. The **final design** shall include drawings and specifications of the spill protection system to be applied to the LNG tank roofs. *EIS section 4.12.2*
52. The **final design** shall include a discretionary vent for each tank, to be operated through the DCS. The outlet from the vent piping shall be designed to discharge beyond the outer containment, to prevent vapor from flowing into the annular containment. *EIS section 4.12.2*
53. The **final design** shall include provisions to measure the discharge flow of each intank pump. *EIS section 4.12.2*
54. The **final design** of the vaporizers shall include double block isolation on the suction and double block isolation and check valve on the discharge of each vaporizer. One of the valves on the suction and one valve on the discharge shall be automatically actuated. *EIS section 4.12.2*
55. The **final design** shall include provisions to ensure that hot glycol/water circulation is operable at all times when LNG is present in the LNG booster pump discharge piping or when the temperature in the LNG inlet channel to any vaporizer is below 0°F. *EIS section 4.12.2*

56. The **final design** shall include detection instrumentation and shut down procedures for vaporizer tube leak, shell side overpressure, or bursting disc failure. *EIS section 4.12.2*
57. The **final design** shall include temperature measurement of the vaporizer common discharge header which shall alarm the low temperature condition. *EIS section 4.12.2*
58. The **final design** shall include a fire protection evaluation carried out in accordance with the requirements of NFPA 59A, chapter 9.1.2. *EIS section 4.12.2*
59. The **final design** shall include details of the shut down logic, including cause and effect lists for alarm and shutdown. *EIS section 4.12.2*
60. The **final design** shall include emergency shutdown of equipment and systems activated by hazard detection devices for flammable gas, fire, and cryogenic spills, when applicable. *EIS section 4.12.2*
61. Security personnel requirements for prior to and during LNG vessel unloading shall be filed **prior to commissioning**. *EIS section 4.12.2*
62. Operation and Maintenance procedures and manuals, as well as emergency plans, emergency evacuation plan and safety procedure manuals, shall be filed **prior to commissioning**. *EIS section 4.12.2*
63. Copies of the Coast Guard security plan, vessel operation plan, and emergency response plan shall be provided to the FERC staff **prior to commissioning**. *EIS section 4.12.2*
64. The contingency plan for failure of the outer LNG tank containment shall be filed **prior to commissioning**. *EIS section 4.12.2*
65. A copy of the criteria for horizontal and rotational movement of the inner vessel for use during and after cool down shall be filed **prior to commissioning**. *EIS section 4.12.2*
66. Ingleside Energy Center shall coordinate with the Coast Guard to define the responsibilities of Ingleside Energy Center's security staff in supplementing other security personnel and in protecting the LNG tankers and terminal **prior to commissioning**. *EIS section 4.12.5*

67. The FERC staff shall be notified of any proposed revisions to the security plan and physical security of the facility **prior to commencement of service.** *EIS section 4.12.2*
68. Ingleside Energy Center shall develop an Emergency Response Plan (including evacuation) and coordinate procedures with local emergency planning groups, fire departments, state and local law enforcement, and appropriate federal agencies. This plan shall include at a minimum:
- a. designated contacts with state and local emergency response agencies;
 - b. scalable procedures for the prompt notification of appropriate local officials and emergency response agencies based on the level and severity of potential incidents;
 - c. procedures for notifying residents and recreational users within areas of potential hazard;
 - d. evacuation routes for public use areas and residents of areas along the route of the LNG 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 Emergency Response Plan shall be filed with the Secretary for review and approval by the Director of OEP **prior to commencement of service.** Ingleside

Energy Center shall notify FERC staff of all meetings in advance and shall report progress on its Emergency Response Plan at 6-month intervals starting at the commencement of construction. *EIS section 4.12.5*

69. Progress on the construction of the LNG terminal shall be reported in **monthly reports** filed with the Secretary. Details shall include a summary of activities, problems encountered and remedial actions taken. Problems of significant magnitude shall be reported to the FERC within 24 hours. *EIS section 4.12.2*

The following measures shall apply throughout the operational life of the LNG facility.

70. The facility shall be subject to regular FERC staff technical reviews and site inspections on at least a **biennial** basis or more frequently as circumstances indicate. Prior to each FERC staff technical review and site inspection, Ingleside Energy Center 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 annual report, shall be submitted. *EIS section 4.12.2*

71. 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.), plant modifications including future plans and progress thereof. Abnormalities shall include, but not be limited to: unloading/shipping problems, potential hazardous conditions from offsite 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 boil-off rates. Adverse weather conditions and the effect on the facility also shall be reported. Reports shall be submitted within **45 days** after each period ending **June 30 and December 31**. In addition to the above items, a section entitled "Significant plant modifications proposed for the next 12 months (dates)" also shall be included in the semi-annual operational reports. Such information would provide the FERC staff with early notice of anticipated future construction/maintenance projects at the LNG facility. *EIS section 4.12.2*
72. In the event the temperature of any region of any secondary containment, including imbedded pipe supports, becomes less than the minimum specified operating temperature for the material the Commission shall be notified within 24 hours and procedures for corrective action shall be specified. *EIS section 4.12.2*
73. 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 FERC staff within 24 hours. In the event an abnormality is of significant magnitude to threaten public or employee safety, cause significant property damage, or interrupt service, notification shall be made immediately, without unduly interfering with any necessary or appropriate emergency repair, alarm, or other emergency procedure. This notification practice shall be incorporated into the LNG facility's emergency plan. Examples of reportable LNG-related incidents include:

- a. fire;
- b. explosion;
- c. estimated property damage of \$50,000 or more;
- d. death or personal injury necessitating in-patient hospitalization;
- e. free flow of LNG for five minutes or more that results in pooling;
- f. unintended movement or abnormal loading by environmental causes, such as an earthquake, landslide, or flood, that impairs the serviceability, structural integrity, or reliability of an LNG facility that contains, 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 safety-related condition that could lead to an imminent hazard and cause (either directly or indirectly by remedial action of the operator), for purposes other than abandonment, a 20 percent reduction in operating pressure or shutdown of operation of a pipeline or an LNG facility that contains or processes gas or LNG;
- l. safety-related incidents to LNG vessels occurring at or en route to and from the LNG facility; or
- m. an event that is significant in the judgment of the operator and/or management even though it did not meet the above criteria or the guidelines set forth in an LNG facility's incident management plan.

In the event of an incident, the Director of OEP has delegated authority to take whatever steps are necessary to ensure operational reliability and to protect human life, health, property or the environment, including authority to direct the LNG facility to cease operations. Following the initial company notification, FERC staff would determine the need for a separate follow-up report or follow-up in the upcoming semi-annual operational report. All company follow-up reports shall include investigation results and recommendations to minimize a recurrence of the incident. *EIS section 4.12.*