

121 FERC ¶ 61,313
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

Golden Triangle Storage, Inc.

Docket Nos. CP07-414-000
CP07-415-000
CP07-416-000

ORDER ISSUING CERTIFICATES

(Issued December 31, 2007)

1. On June 29, 2007, Golden Triangle Storage, Inc. (Golden Triangle) filed an application in Docket No. CP07-414-000 under section 7(c) of the Natural Gas Act (NGA) for a certificate of public convenience and necessity authorizing the construction and operation of a natural gas storage facility and associated pipeline facilities in Jefferson and Orange Counties, Texas. Golden Triangle also requests authority in Docket No. CP07-416-000 under section 7(c) to provide open-access firm and interruptible storage services under subpart G of Part 284 of the regulations and in Docket No. CP07-415-000 for a blanket construction certificate under subpart F of Part 157 of the regulations.

2. We will authorize Golden Triangle's proposals, with appropriate conditions, as discussed below.

I. Background

3. Golden Triangle is a Delaware corporation and wholly-owned subsidiary of AGL Resources, a publicly held corporation. Golden Triangle does not currently provide transportation or storage services and has no facilities. Upon receipt of its requested certificate authorizations, Golden Triangle will become a natural gas company within the meaning of section 2(6) of the NGA.

II. Proposals

A. Facilities

4. Golden Triangle proposes to construct and operate two high-deliverability underground salt storage caverns on a leased 90-acre tract of land near Beaumont, Texas. Initially, Golden Triangle asserts that it will solution mine the caverns so that each cavern

has a working gas capacity of 6.0 billion cubic feet (Bcf) and a cushion gas capacity of 3.1 Bcf. Golden Triangle proposes to place the first cavern in service in late 2010 and the second cavern in service in early 2013. After the caverns are placed in service, Golden Triangle states that the caverns will undergo additional solution mining over a 10- to 12-year period to increase the working gas capacity of each cavern to 8.0 Bcf and the cushion gas capacity of each cavern to 4.24 Bcf.¹ Upon completion, Golden Triangle contends that the proposed storage facility will have an injection capability of 300 million cubic feet (MMcf) per day and a withdrawal capability of 600 MMcf per day.²

5. Golden Triangle also proposes to construct and operate a compressor station, known as the Central Compressor Station, adjacent to the proposed storage caverns.³ Specifically, Golden Triangle will install two 4,735 horsepower compressors to support the first cavern. Golden Triangle will install an additional 4,735 horsepower compressor in connection with the development of the second cavern, bringing total compression to 14,205 horsepower.⁴

6. In addition, Golden Triangle proposes to construct and operate two parallel 24-inch diameter pipelines, extending in a northeasterly direction from the proposed compressor station. One pipeline will be approximately 7.45 miles long and extend from the compressor station to an interconnect with Texas Eastern Transmission, LP (Texas Eastern). The other pipeline will be 8.9 miles long and extend from the compressor station to an interconnect with Florida Gas Transmission Company (Florida Gas). The proposed pipelines will interconnect with three interstate pipelines – Golden Pass Pipeline, LP (Golden Pass); Texas Eastern; and Florida Gas – and three intrastate pipelines – Kinder Morgan Texas Pipeline L.P. (Kinder Morgan); Centana Interstate

¹ As part of the storage caverns, Golden Triangle proposes to construct compression, dehydration and leaching facilities, as well as a 16-inch diameter freshwater pipeline, a 16-inch brine disposal pipeline, brine injection wells, and up to five brine disposal wells.

² Golden Triangle states that it contemplates the development of an additional three caverns at this site in the future.

³ The compressor station will be on 9.89 acres near the northeast corner of the 90-acre storage site.

⁴ As part of the compressor station, Golden Triangle will install gas processing and dehydration facilities, an auxiliary generator for back-up power generation, valves, taps, station piping, utilities, a control building, a gas blowdown silencer, and a diesel storage tank.

Pipeline, LLC (Centana); and Energy Transfer Company (ETC).⁵ Golden Triangle contends that twin lines are necessary to transport sufficient withdrawal and delivery volumes and to accommodate the varying operating pressures and bi-directional flows along the system. The twin pipelines will have a maximum allowable operating pressure of 1,480 psi.

7. Golden Triangle also proposes to construct and operate bi-directional metering and regulating stations at its interconnects with each pipeline. Each meter station will have a capacity of 250,000 Mcf per day and be equipped, among other things, to record volumes, temperature, pressure, and heat content of the gas that is delivered or received.⁶

8. Finally, Golden Triangle proposes to install pig launcher and receiver facilities at the starting point of each proposed 24-inch diameter pipeline and to install pig launcher and receiver facilities at the terminus of one proposed line at the Texas Eastern meter station and at the terminus of the other proposed line at the Florida Gas meter station.⁷

9. Golden Triangle states that it held an open season in May 2007 and that it received numerous bids from producers, marketers, and other entities for approximately three and a half times the initial 6.0 Bcf working gas capacity of the first cavern.

B. Services and Rates

10. In Docket No. CP07-416-000, Golden Triangle requests a blanket certificate under subpart G of Part 284 of the Commission's regulations in order to provide firm and interruptible storage and hub services.

11. Under its proposed tariff, Golden Triangle will offer firm storage service under Rate Schedule FSS, firm parking service under Rate Schedule FP, and firm loan service under Rate Schedule FL. Golden Triangle will also offer interruptible storage service under Rate Schedule ISS, interruptible parking service under Rate Schedule IP, interruptible loan service under Rate Schedule IL, interruptible wheeling service under Rate Schedule IW, and interruptible hourly balancing service under Rate Schedule IHBS.

⁵ The proposed 24-inch diameter lines will interconnect with the existing interstate and intrastate pipelines in the following order from west to east: Kinder Morgan, Centana, Golden Pass, ETC, Texas Eastern, and Florida Gas.

⁶ Each meter station will require slightly less than an acre of land.

⁷ Golden Triangle states that Entergy, the local electric utility, will construct approximately 0.75-mile of 138 kV electrical line and a substation to provide non-jurisdictional electrical service for its proposed project. Golden Triangle states that Entergy will construct the electric facilities in accordance with the requirements of the Public Utilities Commission of Texas and the Texas Railroad Commission.

12. Golden Triangle proposes to offer its firm and interruptible storage and hub services at market-based rates. Golden Triangle submitted a market-power analysis in Exhibit Z-1 to its application, concluding that it will lack market power with respect to the services that it proposes to provide.

C. Waivers

13. Because it proposes to charge market-based rates, Golden Triangle requests a waiver of the Commission's cost-based regulations, which include: (1) sections 157.6(b)(8) and 157.20(c)(3) (applicants to submit cost and revenue data); (2) sections 157.14(a)(13), (14), (16), and (17) (cost-based exhibits); (3) section 157.14(a)(10) (gas supply data); (4) the accounting and reporting requirements of Part 201 and sections 260.1 and 260.2 (relating to the cost-of-service rate structure, i.e., Form 2A); (5) section 284.7(e) (reservation charge); and (6) section 284.10 (straight fixed-variable rate design methodology). Golden Triangle also requests a waiver of section 284.7(d) (pertaining to segmentation) and the "shipper must have title policy."

D. Subpart F Blanket Certificate

14. In Docket No. CP07-415-000, Golden Triangle requests authority for a blanket certificate under subpart F of Part 157 of the Commission's regulations in order to undertake routine construction, maintenance, and operational activities related to its proposals.

E. Need for the Project

15. Golden Triangle contends that new storage projects are needed along the Gulf Coast where a large portion of domestic natural gas production originates, or comes ashore from off-shore production facilities, and where increasing amounts of imported liquefied natural gas (LNG) are expected to be unloaded at existing, expanding, or new LNG import terminals. Golden Triangle points out that its proposed storage project will be near the ExxonMobil Golden Pass LNG terminal, the Cheniere Freeport LNG terminal, and the Cheniere Sabine Pass LNG terminal. Golden Pass avers that these LNG terminals represent over 6.1 Bcf per day of vaporization and send-out capacity, but are equipped with only temporary on-site storage tank capacity. In addition, Golden Triangle contends that it will be connected to six pipelines that will provide access to, among others, the Anadarko Basin in southwest Oklahoma, the Fort Worth Basin in the Fort Worth, Texas area, the East Texas Basin northwest of Beaumont, and the Arkoma Basin in eastern Oklahoma and western Arkansas. Further, Golden Triangle asserts that the pipelines provide service to the mid-Atlantic, northeast, and Florida markets, as well as connections to other intrastate and interstate pipelines and the south and east Texas petrochemical and electric generation markets. Finally, Golden Triangle reiterates that it received bids for approximately three and a half times the 6.0 Bcf working gas capacity of the first cavern during its open season.

III. Interventions

16. Notice of Golden Triangle's application was published in the *Federal Register* on July 18, 2007 (72 Fed. Reg. 39,389). DCP Midstream, LP; the Independent Order of Oddfellows; Pine Prairie Energy Center, LLC; Texas Eastern; and Tres Palacios Gas Storage LLC filed timely, unopposed motions to intervene.⁸

17. TX Energy, LLC (TX Energy) filed an untimely motion to intervene. Jefferson Triangle Marine, L.P. and Jefferson Triangle Properties, L.P. (jointly referred to as Jefferson) filed an untimely, joint motion to intervene. TX Energy and Jefferson have demonstrated an interest in this proceeding and have shown good cause for intervening out of time. Further, the untimely motions will not delay, disrupt, or otherwise prejudice this proceeding. Thus, we will grant TX Energy's and Jefferson's untimely motions to intervene.

18. Texas Governor Rick Perry, State Senator Tommy Williams, State Representative Richard Hardcastle, and James Rich, President of the Greater Beaumont Chamber of Commerce filed letters in support of Golden Triangle's proposals. In addition, State Representatives Joe Deshotel, Mike Hamilton, and Allan Ritter filed a joint letter of support.

IV. Discussion

19. Since the proposed 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 section 7 of the NGA.

A. Certificate Policy Statement

20. The Certificate Policy Statement provides guidance as to how we will evaluate proposals for certificating new construction.⁹ The Certificate Policy Statement established criteria for determining whether there is a need for a proposed project and whether the proposed project will serve the public interest. The Certificate Policy Statement explained that in deciding whether to authorize the construction of major new pipeline facilities, we balance 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

⁸ Timely, unopposed motions to intervene are granted by operation of Rule 214.

⁹ *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999), *order on clarification*, 90 FERC ¶ 61,128, *order on clarification*, 92 FERC ¶ 61,094 (2000) (Certificate Policy Statement).

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.

21. Under this policy, the threshold requirement for pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from its 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 the new pipeline. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, we 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 we proceed to complete the environmental analysis where other interests are considered.

22. As noted above, the threshold requirement is that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. Here, Golden Triangle is a new entrant in the natural gas storage market and has no existing customers. Thus, there will be no subsidization. Moreover, under its market-based rate proposal, Golden Triangle assumes the economic risks associated with the costs of the project's facilities to the extent that any capacity is unsubscribed or revenues are not sufficient to recover costs. For these reasons, we find that Golden Triangle has satisfied the threshold requirement of the Certificate Policy Statement.

23. Further, there will be no impact on existing services since Golden Triangle is a new company that has no current customers. In addition, Golden Triangle's proposals should not have any adverse impact on existing pipelines or their customers. As discussed below, the project will be in a competitive market and will serve demand in a region that is experiencing rapid growth in gas usage. The proposals will enhance storage options available to pipelines and their customers and add to the development of the infrastructure in the region. Also, no storage company in Golden Triangle's market area protested the application.

24. The construction and operation of the proposed facilities will require approximately 179 acres. Only 44.4 acres will be permanently disturbed for operations at the storage site. The construction and operation of the parallel 24-inch diameter lines will permanently disturb approximately 67.5 acres. Golden Triangle proposes to construct approximately 47 percent of the pipelines along existing rights-of-way for power lines, pipelines, roads, and railroads. Golden Triangle states that it anticipates that the number of eminent domain proceedings will be minimal. In addition, no landowner or community member objected to the proposed facilities. Thus, we find that there

should be minimal adverse impact on landowners and communities affected by the project.

25. We conclude that Golden Triangle's proposals will provide its customers access to additional high-deliverability storage capacity in an area where there are several LNG terminals and supply basins. Based on the benefits Golden Triangle will provide to the market and the lack of any identified adverse impacts on existing customers, other pipelines, landowners, and communities, we find, consistent with the Certificate Policy Statement and section 7 of the NGA, that the public convenience and necessity requires approval of Golden Triangle's storage project, as conditioned below.

B. Market-Based Rates

26. We have approved market-based rates for storage providers where applicants have demonstrated, under the analytical framework of the Commission's Alternative Rate Policy Statement, that they lack market power or have adopted conditions that significantly mitigate market power.¹⁰ We have approved requests to charge market-based rates for storage services based on a finding that the proposed projects would not be able to exercise market power due to their relatively small size, their relatively low anticipated share of the market, the existence of numerous competitors in the relevant geographic market, and the ease of entry into the relevant market.¹¹ We have also distinguished between production-area storage facilities and market-area storage.¹² In general, we have determined that market power in a production area is less of a concern due to the numerous alternative storage facilities operating in competition with one another.

¹⁰ *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; *reh'g and clarification denied*, 75 FERC ¶ 61,024 (1996), *petition denied and dismissed*, *Burlington Resources Oil & Gas Co. v. FERC*, 172 F.3d 918 (D.C. Cir. 1998). *Rate Regulation of Certain Natural Gas Storage Facilities*, Order No. 678, FERC Stats. & Regs. ¶ 31,220 (2006), *order on clarification and reh'g*, Order No. 678-A, 117 FERC ¶ 61,190 (2006) (Alternative Rate Policy Statement).

¹¹ *Tres Palacios Gas Storage, LLC*, 120 FERC ¶ 61,253 (2007); *Port Barre Investments, L.L.C.*, 116 FERC ¶ 61,052 (2006); *Pine Prairie Energy Center, LLC*, 109 FERC ¶ 61,215 (2004).

¹² *Moss Bluff Hub Partners, L.P.*, 80 FERC ¶ 61,181 (1997); *Steuben Gas Storage Co.*, 72 FERC ¶ 61,102 (1995), *order on compliance filing and denying reh'g*, 74 FERC ¶ 61,024 (1996).

1. Storage Service

27. Golden Triangle's market-power analysis for storage service defines the relevant product and geographic markets, measures market share and concentration, and evaluates other factors. For the purpose of its analysis, Golden Triangle identifies the relevant product market as firm and interruptible storage and hub services. (Hub services consist of firm and interruptible parking and loaning and interruptible wheeling and hourly balancing services.) Golden Triangle defines the relevant geographic markets for the storage facility as the Gulf Coast production area, consisting of east Texas, Louisiana, Mississippi, and Alabama.

28. Golden Triangle is a new market entrant with no existing jurisdictional or non-jurisdictional operations in the natural gas pipeline or storage industry. Golden Triangle's parent, AGL Resources, owns Jefferson Island Storage & Hub (Jefferson Island) in Iberia Parish, Louisiana, which is within Golden Triangle's geographic market. Thus, for the purposes of conducting Golden Triangle's market-power analysis, we believe that it is appropriate to include the storage capacity of Jefferson Island. Jefferson Island has working gas storage capacity of approximately 7 Bcf.

29. Golden Triangle's market-power analysis identifies 26 alternative natural gas storage facilities not affiliated with Golden Triangle in the Gulf Coast production area, with total working gas capacity of 702 Bcf. When completed, the Golden Triangle project will add 16 Bcf of working gas capacity, which combined with the 7 Bcf of its affiliate, Jefferson Island, increases the total working gas capacity of the production area to 725 Bcf. Under this analysis, Golden Triangle will have approximately 3.2 percent of the market.¹³ In addition, the study finds that the peak deliverability of Golden Triangle and Jefferson Island will be 1,350 MMcf per day, which is approximately 7.0 percent of the available deliverability of 19,365 MMcf per day in the production area.¹⁴ We accept Golden Triangle's analysis and find that Golden Triangle's aggregate share of the relevant storage market will be relatively small.

30. We use the Herfindahl Hirschman Index (HHI) test to determine market concentration for gas pipeline and storage markets. The Alternative Rate Policy Statement states that a low HHI – generally less than 1,800 – indicates that sellers cannot exert market power because customers have sufficiently diverse alternatives in the relevant market. While a low HHI suggests a lack of market power, a high HHI – generally greater than 1,800 – requires closer scrutiny in order to make a determination about a seller's ability to exert market power.¹⁵ Golden Triangle's market-power

¹³ Golden Triangle's Market Power Study, Exhibit No. 3.

¹⁴ *Id.* Exhibit No. 6.

¹⁵ Alternative Rate Policy Statement 74 FERC, at 61,235.

analysis shows an HHI calculation of 1,013 for working gas capacity and an HHI calculation of 866 for peak day deliverability. These measures of market concentration are well below the threshold level of 1,800, indicating that Golden Triangle would be unable to exert market power in the relevant market area after the construction of its proposed storage facility.

31. Golden Triangle's market-power analysis provides data demonstrating the ease of entry into the Gulf Coast production-area market. Specifically, the analysis indicates that there are 17 new storage projects or expansions of existing storage facilities proposed in the region,¹⁶ which shows that Golden Triangle will have to compete against other potential storage facilities for customers within the relevant market area. If built, these projects may incrementally expand the current working gas capacity in the Gulf Coast region by up to 272.8 Bcf (or 37.6 percent) and expand peak day delivery by about 15,400 MMcf per day (or 79.5 percent). In light of this information, we conclude that the barriers to entry to storage markets in the relevant geographic area are low.

2. Hub Services

32. Golden Triangle's proposed hub services (i.e., parking, loaning, and balancing) are essentially variations of storage services and the market-power analysis for storage services demonstrates that Golden Triangle lacks market power with regard to such services. Traditionally, in evaluating whether shippers of an applicant seeking market-based rate authority for interruptible wheeling service could obtain the same services from alternative providers, we have used a matrix, referred to as a "bingo card," which identifies all possible interconnects for pipelines attached to a hub and indicates whether good alternatives exist. Golden Triangle presents such an analysis, showing connections between six pipelines directly interconnected with Golden Triangle's system and indicating that shippers can avoid Golden Triangle through the use of alternative routes.¹⁷ Golden Triangle's Market Power Study, Exhibit No. 8, shows that over 3 Bcf per day of capacity exists for alternative receipt and delivery points on the five pipelines currently in service that will interconnect with Golden Triangle's system and that this total will increase once the Golden Pass pipeline is placed in service.

3. Summary

33. We find that Golden Triangle's study demonstrates that its proposed storage facilities will be in a highly competitive market where numerous storage and interruptible

¹⁶ Golden Triangle's Market Power Study, Exhibit No. 13, "Proposed/Under Development Storage Facilities in Gulf Coast Production Area."

¹⁷Market Power Study, Exhibit No. 8. (The Golden Pass pipeline has yet to be constructed.)

hub service alternatives exist for potential customers. We also find that Golden Triangle's prospective market shares are low and that its HHI for working gas capacity and for peak day deliverability are below the threshold for further review. Thus, we conclude that Golden Triangle will lack market power. Further, Golden Triangle's proposal for market-based rates is unopposed. For these reasons, we will approve Golden Triangle's request to charge market-based rates for firm and interruptible storage and hub services.

34. Nevertheless, Golden Triangle must notify the Commission if future circumstances significantly affect its present market-power status. Thus, our approval of market based rates for the indicated services is subject to re-examination in the event that: (a) Golden Triangle adds storage capacity beyond the capacity authorized in this order; (b) an affiliate increases storage capacity; (c) an affiliate links storage facilities to Golden Triangle; or (d) Golden Triangle, or an affiliate, acquires an interest in, or is acquired by, an interstate pipeline connected to Golden Triangle. Since these circumstances could affect its market-power status, Golden Triangle shall notify the Commission within 10 days of acquiring knowledge of any such changes. The notification shall include a detailed description of the new facilities and their relationship to Golden Triangle.¹⁸ We also reserve the right to require an updated market-power analysis at any time.¹⁹

4. Waivers of Filing Requirements

35. Because it proposes to charge market-based rates, Golden Triangle requests a waiver of the Commission's cost-based regulations in section 157.6(b)(8), sections 157.14(a)(13), (14), (16), and (17), section 157.14(a)(10), section 157.20(c)(3); section 284.7(e), section 284.10, and the accounting and reporting requirements in Part 201 and sections 260.1 and 260.2 of the Commission's regulations.

36. In light of our approval of market-based rates for Golden Triangle's storage services, the cost-related information required by these regulations is not relevant. Thus, consistent with our findings in previous orders,²⁰ we will grant Golden Triangle's request for waivers, except for the information necessary for our assessment of annual charges.²¹ We will require Golden Triangle to file pages 520 and 520-A of Form No. 2-A, reporting

¹⁸ *E.g.*, *Bobcat Gas Storage*, 116 FERC ¶ 61,052 (2006); *Pine Prairie Energy Center, LLC*, 109 FERC ¶ 61,215 (2004); *Copiah County Storage Co.*, 99 FERC ¶ 61,316 (2002).

¹⁹ *See Rendezvous Gas Services, L.L.C.*, 112 FERC ¶ 61,141, at P 40 (2005).

²⁰ *See, e.g.*, *Bobcat Gas Storage*, 116 FERC ¶ 61,052 (2006); *Liberty Gas Storage, LLC*, 113 FERC ¶ 61,247, at P 54 (2005); *SG Resources Mississippi, L.L.C.*, 101 FERC ¶ 61,029, at P 26 (2002).

²¹ *See Wyckoff Gas Storage Co., LLC*, 105 FERC ¶ 61,027, at P 65 (2003).

the gas volume information which is the basis for imposing an annual charge adjustment charge. In addition, consistent with the Uniform System of Accounts, we will also require Golden Triangle to maintain sufficient records should we require Golden Triangle to produce these reports in the future.

C. Tariff

37. Golden Triangle proposes to offer its firm and interruptible storage and hub services at market based rates under the terms and conditions set forth in the pro forma tariff attached as Exhibit P to the application. As discussed, we find that Golden Triangle's proposed tariff generally complies with Part 284 of the regulations, with the exceptions noted below.

1. Priority, Interruption of Service, and Operational Balancing Agreements

38. Section 5.1 of the General Terms and Conditions (GT&C) of the tariff contains Golden Triangle's priorities of service. Section 5.1(d) provides that the priority for extended injections and withdrawals for firm storage service in excess of maximum daily receipt quantity (MDRQ) per 24 hours or the maximum daily delivery quantity per 24 hours is below that of interruptible service, including excess injection or withdrawal gas. This priority is not consistent with our policy that overrun and interruptible services should have the same priority. In prior cases, we held that pipelines must revise their tariffs so that interruptible and overrun services are accorded the same scheduling priority.²² Thus, we will require Golden Triangle to revise its scheduling priorities or, in the alternative, provide a reason for giving a lower priority for extended injections and withdrawals than for interruptible service.

39. Sections 5.1(e) and 5.3(a) of the GT&C provide that in a period of constraint, two or more firm customers with the same priority will be allocated capacity on a pro rata basis based on their maximum daily withdrawal quantity (MDWQ). It is not clear why storage injection and receipt capacity should be allocated based upon a customer's MDWQ if the allocation is being done to address constraints on storage injections or receipts. Thus, we will require Golden Triangle to revise its tariff to state that the MDRQ will be used for firm storage injection allocations or, in the alternative, to provide justification for the need to only use MDWQ for the allocation of capacity.

40. Section 5.6(a) of the GT&C provides that Golden Triangle is willing to negotiate an operational balancing agreement (OBA) with any transporter for the purpose of minimizing operational imbalances, or resolving other matters, with respect to the receipt

²² See, e.g., *Central New York Oil and Gas Co., LLC*, 114 FERC ¶ 61,105 (2006); *CNG Transmission Corp.*, 81 FERC ¶ 62,587, at 62,592 (1997).

of gas into, or delivery of gas from, Golden Triangle's facilities. Section 5.6(b) describes the terms under which Golden Triangle will enter into an OBA. In Order No. 587-G,²³ we adopted section 284.10(c)(2)(i) of the Commission's regulations,²⁴ which requires every interstate pipeline to enter into OBAs at all points of interconnection between their systems and the systems of other interstate or intrastate pipelines. Golden Triangle is required to comply with section 284.10(c)(2)(i) once it is in service.

2. Minimum Gas Quantity

41. Sections 6.3, 6.4, 7.2, and 7.3 of the GT&C provide that Golden Triangle will not be obligated to receive, deliver, or wheel at any point any quantity of gas when the total quantity at the point results in a net metered flow which is less than or equal to 10,000 dekatherms (Dth) per day. In its application, Golden Triangle contends that these provisions are necessary because its meters do not register accurately at net metered flows below 10,000 Dth per day. Golden Triangle also points out that sections 6.3 and 6.4 of SG Resources Mississippi, LLC's (SG Resources) tariff have a similar limitation.

42. Under sections 284.7(b) and 284.9(b) of the Commission's regulations, the transporter may not discriminate as to the level of volumes transported. However, we have indicated that a pipeline may not accept transportation requests where the quantities to be transported are too small to be metered.²⁵ Further, we accepted a proposal by Gulf South Pipeline Company, LP (Gulf South) for a 100 Dth per day threshold for connections of new receipt and delivery points.²⁶ In that case, we relied on Gulf South's assertions that serving small volume points presented operational challenges because these points were difficult to measure, which increased the potential for lost system gas. Also, Gulf South stated that the costs associated with operating small points would be greater than the maximum rate would cover.²⁷

43. Although we accepted SG Resources' proposed tariff with a provision similar to Golden Triangle's in the SG Resources certificate proceeding, we did not specifically

²³ *Standards For Business Practices Of Interstate Natural Gas Pipelines*, Order No. 587-G, 63 Fed. Reg. 20072 (1998), FERC Stats. & Regs., Regulations Preambles July 1996 – December 2000 ¶ 31,062 (1998), *order on reh'g*, Order No. 587-I, FERC Stats. & Regs., Regulations Preambles July 1996 – December 2000 ¶ 31,067 (1998).

²⁴ 18 C.F.R. §284.10 (c)(2)(i).

²⁵ *Texas Eastern Transmission Corp.*, 37 FERC ¶ 61,260, at 61,680-81 (1986).

²⁶ *Gulf South Pipeline Co., LP*, 103 FERC ¶ 61,105, at P 13 (2003).

²⁷ *Id.* at P 9 and 12.

address the merits of that provision.²⁸ In *Gulf South*, Gulf South provided operational and cost reasons for its minimum volume condition. Unlike *Gulf South*, Golden Triangle has not provided any justification for its proposed minimum volume condition, which is 100 times as large, other than a statement that its meters do not register accurately at net metered flows below 10,000 Dth per day. Upon consideration here, we find that Golden Triangle's proposal is unreasonable because it may result in discrimination against small volume customers. Thus, we will require Golden Triangle to eliminate the proposed minimum volume condition or, in the alternative, provide additional justification that 10,000 Dth per day is too small a gas quantity to be metered.

3. Gas Quality

44. Section 10.1(a) of the GT&C provides that Golden Triangle may, from time to time, establish and post on its website an upper Btu limit, a hydrocarbon dewpoint limit, or other gas quality specifications, as necessary, to assure that gas will be accepted into interconnects with any transporter.

45. We recognize that the gas quality standards in a tariff must provide sufficient flexibility for the pipeline to act in a timely manner to protect its operational integrity and minimize equipment damage. The Natural Gas Interchangeability Policy Statement addressed gas quality and interchangeability concerns and delineated five principles we will use in deciding gas quality issues.²⁹ The first principle stated that only natural gas quality and interchangeability specifications contained in a Commission-approved gas tariff can be enforced. We believe that the tariff provisions in section 10.1(a) related to establishing additional gas quality specifications are not adequately defined and provide Golden Triangle too much discretion to vary gas quality specifications without providing adequate notice and explanation to its customers. If Golden Triangle believes it is necessary to limit the maximum Btu content or the dewpoint of gas received into its system, or any other gas quality specification, it must propose to include these specific criteria in its tariff. To the extent it desires flexibility to vary these standards in particular circumstances, it should include in its tariff a specific mechanism for doing so.

4. Billing and Payments

46. Section 14.4 of the GT&C provides that Golden Triangle shall have the right and option to terminate service if a customer has not paid the undisputed portion of an invoice 60 days after the due date. Section 154.602 of the Commission's regulations provides that pipelines must give at least 30 days' notice to the customer and the Commission

²⁸ *SG Resources Mississippi, LLC*, 101 FERC ¶ 61,029 (2002).

²⁹ *Policy Statement on Provisions Governing Natural Gas Quality and Interchangeability in Interstate Natural Gas Pipeline Company Tariffs*, 115 FERC ¶ 61,325 (2006).

before terminating a service agreement. Thus, we will require Golden Triangle to revise section 14.4 of the GT&C to conform to section 154.602.

5. North American Energy Standards Board Standards

47. Golden Triangle states that its proposed tariff is consistent with Version 1.5 of the North American Energy Standards Board (NAESB) standards. On May 9, 2005, we issued Order No. 587-S which, among other things, adopted Version 1.7 of the NAESB standards.³⁰ Thus, we will require Golden Triangle to revise its tariff to comply with Order No. 587-S, as modified by any future NAESB requirements in effect at the time of the filing, when it files actual tariff sheets in this proceeding. The filing must include a cross-reference showing each NAESB standard number, the tariff section containing the standard, and whether Golden Triangle incorporated the standard verbatim or by reference.

6. Default and Termination

48. Section 29.2 of the GT&C provides that in the event of a default by a customer, Golden Triangle may refuse to accept further deliveries, refuse to deliver gas, or suspend service to the customer until the customer corrects the default in full.

49. Pipelines that opt to suspend service are making an election of remedies, i.e., they are determining that the risk of continued service outweighs the potential collection of reservation or other charges during the time of the suspension. Since the pipeline is making an election to suspend service and is not providing the service required under the contract during the suspension, we have not permitted pipelines to impose reservation charges during the period of suspension.³¹ For these reasons, we will require Golden Triangle to clearly state in its tariff that it will not bill the shipper if the shipper's service is suspended.

³⁰ *Standards for Business Practices of Interstate Natural Gas Pipelines*, Order No. 587-S, FERC Stats. & Regs., Regulations Preambles 2001-2005 ¶ 31,179 (2005) (amending the regulations to incorporate by reference the most recent version of the standards: Version 1.7 of the consensus standards promulgated December 31, 2003 by the Wholesale Gas Quadrant of the NAESB; the standards ratified by NAESB on June 25, 2004 to implement Order No. 2004; the standards ratified by NAESB on May 3, 2005 to implement Order No. 2004-A; and the standards implementing gas quality requirements ratified by NAESB on October 20, 2004).

³¹ *Policy Statement on Creditworthiness for Interstate Natural Gas Pipelines and Order Withdrawing Rulemaking Proceeding*, FERC Stats. & Regs., Regulations Preambles 2001-2005 ¶ 31,191 (2005) (Creditworthiness Policy Statement).

7. Creditworthiness – Financial Assurances

50. Section 32.5 of the GT&C provides that if a customer suffers a material adverse change,³² the customer will provide Golden Triangle with one of the forms of financial assurance listed in section 32.7 within five days after written notice from Golden Triangle.

51. We have found that similar proposals to require a customer to provide the total amount of collateral within five days to be an unreasonably short period of time.³³ However, consistent with the Creditworthiness Policy Statement, when a customer is no longer creditworthy, we found that a pipeline need only give a customer five business days following notice to post security for the value of previously loaned gas and to pay in advance to cover one month's service.³⁴ We also found that a customer must fully comply with the financial assurance provisions within 30 days of notification.³⁵ For these reasons, we will require Golden Triangle to revise section 32.5 to comply with this timeline or, in the alternative, to propose a new timeline that addresses the concerns expressed in the Creditworthiness Policy Statement about providing shippers a reasonable amount of time to provide the full amount of financial assurance.

52. In addition, the Creditworthiness Policy Statement requires that the pipeline provide its shippers with the opportunity to earn interest on collateral, either by the pipeline paying interest to the shipper or giving the shipper the option to designate an escrow account to which the pipeline may gain access to payments for services provided, if needed.³⁶ Golden Triangle's tariff does not appear to comply with this requirement. Thus, we will require Golden Triangle to revise its tariff to allow shippers the opportunity to earn interest on collateral.

³² Material adverse change is defined as the failure of the customer at any time to satisfy the requirements relating to creditworthiness in section 3.2(g) of the GT&C.

³³ *Bluewater Gas Storage LLC*, 117 FERC ¶ 61,122, *order on reh'g*, 117 FERC ¶ 61,351 (2006) (*Bluewater*); *Northern Natural Gas Co.*, 102 FERC ¶ 61,076 (2003); *Tennessee Gas Pipeline Co.*, 102 FERC ¶ 61,075 (2003).

³⁴ Creditworthiness Policy Statement at P 27-28. *See also Bluewater*, 117 FERC ¶ 61,122, at P 44.

³⁵ Creditworthiness Policy Statement at P 28.

³⁶ *Id.* at P 22.

8. Form of Service Agreement

53. Exhibit A to the Form of Service Agreement for Rate Schedule FSS provides Golden Triangle with the ability to negotiate storage ratchets with its customers.

54. We have provided pipelines with flexibility in negotiating individual rate provisions through negotiated rate authority, but we have not allowed the negotiation of terms and conditions of service that would result in a customer receiving a different quality of service than that provided to other customers contracting for the same service under the pipeline's tariff.³⁷ Further, we have not provided pipelines with the authority to file for pre-approval of the right to negotiate terms and conditions of service with individual customers because of the risk of undue discrimination among customers.³⁸ Generally, we consider negotiated terms and conditions of service to be those provisions related to the operational conditions of transportation service.³⁹ This includes any provision that results in a customer receiving a different quality of service than that provided other customers under the pipeline's tariff or affects the definition and the quality of service received by others.⁴⁰ Allowing shippers to negotiate ratchets of a storage service fundamentally changes the nature of the service, such that two parties contracting for the same service may no longer be receiving a service that is equal or even similar in quality. Since we have previously rejected a request to negotiate storage ratchets, we will require Golden Triangle to remove Exhibit A from the Form of Service Agreement for Rate Schedule FSS.⁴¹

9. Segmentation

55. Section 284.7(d) provides that an interstate pipeline must permit a shipper to make use of the firm capacity for which the shipper has contracted by segmenting that capacity into separate parts for the shipper's own use, or for the purpose of releasing that capacity to replacement shippers to the extent segmentation is operationally feasible. Golden

³⁷ Section 284.7 (b)(2) of the regulations requires that "an interstate pipeline that offers transportation service on a firm basis under subpart B or G of this part must provide each service on a basis that is equal in quality for all gas supplies transported under that service, whether purchased from the pipeline or another seller."

³⁸ *CenterPoint Energy Gas Transmission Co.*, 104 FERC ¶ 61,281 (2003); *Tennessee Gas Pipeline Co.*, 97 FERC ¶ 61,225 (2001); *ANR Pipeline Co.*, 97 FERC ¶ 61,223 (2001).

³⁹ *Tennessee Gas Pipeline Co.*, 97 FERC ¶ 61,225 (2001); *ANR Pipeline Co.*, 97 FERC ¶ 61,223 (2001).

⁴⁰ *Id.*

⁴¹ *Bluewater*, 117 FERC ¶ 61,122, at P 34.

Triangle requests a waiver from the segmentation requirement in section 284.7(d), contending that there is nothing to segment because its system consists of a single integrated storage facility, including two storage caverns, that operate in one geographic location.

56. In *Cold Creek Gas Storage Co.*,⁴² we found that the requirements of section 284.7(e) do not apply to pipelines engaged solely in natural gas storage and which do not provide stand-alone transportation service.⁴³ Golden Triangle meets the requirements in *Cold Creek*. Thus, we hold that the requirements of section 284.7(d) do not apply to Golden Triangle. We also find that other tariff provisions related to segmentation, such as the allocation of primary point rights in segmented releases and within-the-path scheduling, do not apply.

10. Acquisition of Off-System Capacity and Waiver of Shipper-Must-Hold-Title Policy

57. Golden Triangle requests a generic waiver of the “shipper-must-hold-title” policy for any off-system capacity it may need to obtain in order to provide storage services to enable it to use that capacity to transport natural gas owned by other parties. Section 31 of the GT&C includes an affirmative statement that Golden Triangle will only transport gas for others using off-system capacity under its open-access tariff and subject to Commission-approved rates.

58. We have imposed conditions on the use of off-system capacity by independent storage companies authorized to charge market-based rates.⁴⁴ In *Texas Eastern Transmission Corp. (Texas Eastern)*,⁴⁵ we found that pipelines no longer need to obtain prior approval to acquire capacity on another pipeline, provided the acquiring pipeline has filed tariff language specifying that it will only transport for others using off-system capacity under its tariff provisions and rates. Golden Triangle’s proposed tariff language is consistent with the requirements set forth in *Texas Eastern*.

59. Thus, we will accept Golden Triangle’s tariff language and grant waiver of the shipper-must-hold-title policy, with the following clarification. Golden Triangle may only use capacity obtained on other pipelines in order to render services set forth in its

⁴² 96 FERC ¶ 61,071 (2001) (*Cold Creek*).

⁴³ *E.g.*, *Pine Prairie Energy Center, LLC*, 109 FERC ¶ 61,215, at P 44 (2004).

⁴⁴ *Freebird Gas Storage, LLC*, 111 FERC ¶ 61,054 (2005); *Caledonia Energy Partners, L.L.C.* 111 FERC ¶ 61,095 (2005).

⁴⁵ *Texas Eastern Transmission Corp.*, 93 FERC ¶ 61,273 (2000), *reh’g denied*, 94 FERC ¶ 61,139 (2001).

tariff. That is, Golden Triangle may not use capacity on other pipelines to transport gas which will not physically or contractually enter its storage facility unless and until it has received Commission authorization to provide such transportation services. Furthermore, Golden Triangle's authorized use of the *Texas Eastern* waiver to provide storage services shall be limited to the geographic area covered by Golden Triangle's market-power study.

60. Within 30 days after its first full year of operation, and every year thereafter, we will require Golden Triangle to file, for each acquisition of off-system capacity:

- (1) the name of the off-system provider;
- (2) the type, level, term and rate of service contracted for by Golden Triangle;
- (3) a description of the geographic location – boundaries, receipt and delivery points, and segments comprising the capacity;
- (4) the operational purpose(s) for which the capacity is used;
- (5) a description of how the capacity is associated with specific transactions involving customers of Golden Triangle; and
- (6) an identification of total volumes, by Golden Triangle's rate schedule and customer, that Golden Triangle has nominated on each off-system provider during the reporting period.

V. **Engineering Analysis**

61. Our staff completed an engineering analysis of Golden Triangle's proposed natural gas storage facility. Based on this analysis, we concluded that the facilities are properly designed to provide 24.48 Bcf of total storage capacity (16 Bcf of working gas and 8.48 Bcf of cushion gas capacity). We also conclude that Golden Triangle's facilities are properly designed to withdraw up to 600 MMcf per day of natural gas. Further, based on our review, we conclude that the geological and engineering parameters for the underground natural gas salt cavern storage facilities are well defined. Our analysis shows that Golden Triangle's proposed cavern locations are well within the design criteria and confinement of the salt formation. Thus, we conclude that the caverns' existing arrangement would avoid pressure influence between caverns when the caverns are operated at full capacity and pressure.

62. Because salt deforms plastically in relatively short time frames, caverns will shrink over time. As stated in *A Brief History of Salt Cavern Use*, large volume losses

due to salt creep have occurred in natural gas storage caverns.⁴⁶ Further, the Interstate Oil and Gas Compact Commission's Report entitled *Hydrocarbon Storage in Mined Caverns* (IOGCC Report) states that monitoring to demonstrate cavern stability and successful hydrodynamic containment should be carried out throughout the life of the facility.⁴⁷ In order to mitigate these concerns, we will require Golden Triangle to conduct sonar surveys to monitor the caverns' size to insure that salt creep does not potentially damage the integrity of the caverns, which may result in lost gas and reductions in storage capacity. In addition, the IOGCC Report states that "[a]ll gaseous and/or liquid products injected into or withdrawn from the storage facility shall be metered using industry accepted standards. The measurements shall be counterchecked by product level measurement in the cavern (using the level versus volume curve)."⁴⁸ For this reason, we will also require Golden Triangle to file an annual inventory verification study to assist in the identification of potential problems with the storage facility.

63. Golden Triangle seeks a period of about six years to initially leach the caverns and make them available for service. Specifically, Golden Triangle proposes to construct the caverns sequentially, due to a lack of leaching capacity, with each cavern taking approximately two and one half years to reach their initial capacities. Further, throughout the leaching process, Golden Triangle plans to conduct several sonar surveys to check the status of the caverns. Based on Golden Triangle's testing and construction requirements, we find that the proposed six-year construction time frame to initiate service from both of the caverns is reasonable.

VI. Environmental Analysis

64. On August 7, 2007, we issued a *Notice of Intent to Prepare an Environmental Assessment* (NOI). We mailed the NOI to approximately 400 interested parties including federal, state, and local officials; agency representatives; conservation organizations; Native American groups; local libraries and newspapers; and landowners in the vicinity of the proposed project. In response to the NOI, we received one substantive comment letter from the United States Fish and Wildlife Service (FWS) regarding potential affects on wildlife habitat.

⁴⁶ Thomas, Robert and Gehle, Richard, *A Brief History of Salt Cavern Use*, Solution Mining Research Institute, 2000.

⁴⁷ *Hydrocarbon Storage in Mined Caverns, A Guide for State Regulators*, Interstate Oil and Gas Compact Commission, 2000.

⁴⁸ *Id.*

65. We prepared an Environmental Assessment (EA) that addresses geology and soils, wetlands and waterbodies, vegetation and wildlife, threatened and endangered species, cultural resources, land use, air and noise quality, safety, and project alternatives. The EA also addressed the comment of the FWS.⁴⁹

66. The EA notes that portions of the brine disposal and parallel 24-inch diameter pipelines, as well as the entire storage facility site, lie within the Lucas Gusher Spindletop Oil Field, which is listed in the *National Register of Historic Places* and is also a National Historic Landmark (NHL) due to the field's historic importance to the early oil industry. Following staff's consultation with the Texas State Historic Preservation Office (SHPO), we believe that any effects of the proposed action on the NHL would not be significant and that adverse effects can be mitigated by measures developed through the National Historic Preservation Act section 106 process. However, to assure that any adverse effects caused by siting the facility at the proposed location would be resolved for purposes of section 106 compliance, we have adopted staff's recommended mitigation measures that construction be deferred until the completion of all appropriate studies, any required consultations with the Advisory Council on Historic Preservation (ACHP) and the National Park Service (NPS), and mitigation/treatment, and the Director of the Office of Energy Projects (OEP) notifies Golden Triangle in writing that it may proceed.

67. Based on the discussion in the EA, we conclude that approval of the proposed project would not constitute a major federal action significantly affecting the quality of the human environment, if Golden Triangle constructs the proposed facilities in accordance with its application and supplements and the mitigation measures listed below.

68. 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. However, this does not mean that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.⁵⁰

69. Golden Triangle shall notify the Commission's environmental staff by telephone, e-mail, or facsimile of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Golden Triangle.

⁴⁹ We issued the EA on December 7, 2007.

⁵⁰ See, e.g., *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293 (1988); *National Fuel Gas Supply v. Public Service Comm'n*, 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).

Golden Triangle shall file written confirmation of such notification with the Secretary of the Commission (Secretary) within 24 hours.

VII. Blanket Certificates

70. Golden Triangle requests a Part 284, subpart G blanket certificate in order to provide open-access storage services. Under a Part 284 blanket certificate, Golden Triangle will not require individual authorizations to provide storage services to particular customers. Golden Triangle filed a *pro forma* Part 284 tariff to provide open-access storage services. Since a Part 284 blanket certificate is required for Golden Triangle to offer those storage services, we will grant Golden Triangle's request for a Part 284 blanket certificate, subject to the conditions imposed herein.

71. Golden Triangle requests a Part 157, subpart F blanket certificate. The subpart F blanket certificate gives a natural gas company section 7 authority to automatically, or after prior notice, perform certain activities related to the construction, acquisition, abandonment, and replacement and operation of pipeline facilities. Because Golden Triangle will become an interstate pipeline with the issuance of a certificate to construct and operate the proposed facilities, we will issue the requested Part 157, subpart F blanket certificate. However, Golden Triangle's blanket certificate shall not include automatic authorization to increase storage capacity. The restriction on Golden Triangle's Part 157 blanket certificate is based on the fact that Golden Triangle's storage facility is a salt cavern in the initial stages of development for which future expansion will require reevaluation by the Commission of historic data and new engineering and geological data.⁵¹

VIII. Conclusion

72. 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,

The Commission orders:

(A) A certificate of public convenience and necessity is issued to Golden Triangle in Docket No. CP07-414-000 authorizing it to construct and operate the proposed storage facilities, as more fully described in this order and in the application.

(B) A blanket transportation certificate is issued to Golden Triangle in Docket No. CP07-416-000 under subpart G of Part 284.

⁵¹ See, e.g., *Unocal Windy Hill Gas Storage*, 115 FERC ¶ 61,218 (2006).

(C) A blanket construction certificate is issued to Golden Triangle in Docket No. CP07-415-000 under subpart F of Part 157.

(D) The certificate issued in Ordering Paragraph (A) is conditioned on Golden Triangle's compliance with all applicable Commission regulations under the Natural Gas Act, particularly the terms and conditions in Parts 154, 157, and 284 and paragraphs (a), (c), (e), and (f) of section 157.20 of the regulations.

(E) Golden Triangle's request to charge market-based rates for firm and interruptible storage and hub services is approved, as conditioned in the body of the order.

(F) Golden Triangle shall notify the Commission within 10 days of acquiring knowledge of: (a) Golden Triangle adding storage capacity beyond the capacity authorized in this order; (b) an affiliate increasing storage capacity; (c) an affiliate linking storage facilities to Golden Triangle; or (d) Golden Triangle's, or an affiliate's, acquisition of an interest in, or being acquired by, an interstate pipeline connected to Golden Triangle. The notification shall include a detailed description of the new facilities and their relationship to Golden Triangle.

(G) Golden Triangle's requests for waivers of the Commission's regulations are granted, as discussed in the body of this order.

(H) Golden Triangle shall submit actual tariff sheets that comply with the requirements contained in the body of this order no less than 30 days, or more than 60 days prior, to the commencement of interstate commerce.

(I) Within 30 days after its first full year of operation and every year thereafter, Golden Triangle shall file an annual informational filing on its provision of service using off-system capacity, as detailed in the body of this order.

(J) Golden Triangle must comply with the engineering conditions set forth in Appendix A to this order.

(K) Golden Triangle shall comply with the environmental conditions set forth in the Appendix B to this order.

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

(M) The facilities authorized in this order shall be constructed and made available for service within six years of the date of the order in this proceeding in accordance with section 157.20(b) of the Commission's regulations.

(N) TX Energy's and Jefferson's untimely motions to intervene are granted.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix A

Engineering Conditions for Golden Triangle's Proposed Project

1. The maximum inventory of natural gas stored in Golden Triangle's storage facility shall not exceed the certificated levels of 24.48 Bcf at 14.73 psia and 60° F. The maximum gas storage shut-in stabilized pressure gradient of each cavern shall not exceed 0.85 psi per foot. The minimum pressure shall be limited to 0.20 psi per foot.
2. The final gas storage operating capacity of each cavern, working gas capacity, cushion gas capacity, and the minimum pressure shall be determined after the facility's operating parameters are evaluated and filed with the Commission (include data work papers to support the actual operating capacity determination).
3. Before commencing gas storage operations, Golden Triangle shall:
 - (a) conduct a mechanical integrity test for the cavern before initiation of each well/cavern to natural gas storage, and file the results with the Commission;
 - (b) file with the Commission copies of the latest interference tracer surveys, or other testing or analysis on each cavern, to verify the lack of communication between the caverns;
 - (c) establish and maintain a subsidence monitoring network over the proposed caverns storage area; and
 - (d) assemble, test, and maintain an emergency shutdown system.
4. Twice annually, Golden Triangle shall conduct a leak detection test during storage operations to determine the integrity of each cavern, well bore, casing, and wellhead and file the results with the Commission until one year after the storage inventory volume reaches or closely approximates the full authorized capacity, unless otherwise ordered by the Commission.
5. Each cavern's well will be periodically logged to check the integrity of each casing string. In addition, every five years, Golden Triangle shall conduct sonar surveys of the caverns to monitor their dimensions and shape, including the cavern roof, and to estimate pillar thickness between openings throughout the storage operations, and file the results with the Commission.

6. Golden Triangle shall conduct an annual inventory verification study on each cavern and file the results with the Commission.
7. The Golden Triangle storage facilities shall be operated in such a manner as to prevent gas loss or migration.
8. Golden Triangle shall file with the Commission semi-annual reports (to coincide with the with the maximum and minimum storage pressures) containing the following information in accordance with section 157.214(c) of the regulations (volumes shall be stated at 14.73 psia and 60 °F and pressures shall be stated in psia):
 - (a) the daily volume of natural gas injected into and withdrawn;
 - (b) the inventory of natural gas and shut-in wellhead pressure for each cavern at the end of each reporting period;
 - (c) the maximum daily injection and withdrawal rates experienced for the entire storage field during the reporting period and the average working pressure on such maximum days taken at a central measuring point where the total volume injected or withdrawn is measured;
 - (d) the results of any tests performed to determine the actual size, configuration, or dimensions of the storage caverns;
 - (e) a discussion of current operating problems and conclusions; and
 - (f) other data or reports which may aid the Commission in the evaluation of the storage project.
9. Golden Triangle shall continue to file the above semi-annual reports in accordance with section 157.214(c) for a period of one year following the date facility operation at maximum level is initiated.

Appendix B

Environmental Conditions for Golden Triangle's Proposed Project

1. Golden Triangle shall follow the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests) and as identified in the EA, unless modified by this order. Golden Triangle must:

- a. request any modification to these procedures, measures, or conditions in a filing with the 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 OEP before using that modification.

2. 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 this 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.

3. **Prior to any construction**, Golden Triangle shall file an affirmative statement with the Secretary, certified by a senior company official, that all company, environmental inspector (EI), and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.

4. The authorized facility locations shall be as shown in the EA, as supplemented by filed alignment sheets, and shall include all of the staff's recommended facility locations as identified in the EA. **As soon as they are available, and before the start of construction**, Golden Triangle 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.

Golden Triangle's exercise of eminent domain authority granted under section 7(h) of the NGA in any condemnation proceedings related to this order must be consistent with these authorized facilities and locations. Golden Triangle's right of eminent domain granted under section 7(h) does not authorize it to increase the size of its natural gas pipeline to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

5. Golden Triangle 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, 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, and minor field realignments per property owner needs and requirements which do not affect other property owners 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.

6. Golden Triangle shall file updated status reports prepared by the head EI 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 non-compliance observed by the EI(s) 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. a description of corrective actions implemented in response to all instances of non-compliance, 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 Golden Triangle from other federal, state or local permitting agencies concerning instances of non-compliance, and Golden Triangle's response.

7. Golden Triangle must receive written authorization from the Director of OEP **before commencing service** from the project. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way and other areas of project-related disturbance are proceeding satisfactorily.

8. Golden Triangle's vegetation maintenance program shall exclude clearing within any wetlands or forested areas crossed between the entry and exit point of any horizontal directional drills.

9. **Prior to construction**, Golden Triangle shall file with the Secretary a noxious weed plan, developed in consultation with the FWS, that addresses the Chinese tallow tree and deep rooted sedge.

10. Golden Triangle shall defer construction and use of facilities and staging, storage, and temporary work areas and new or to-be-improved access roads **until**:

- a. Golden Triangle files the Texas SHPO comments on sites 41JF84-89;
- b. Golden Triangle files the additional information requested by the Texas SHPO (letter dated October 31, 2007) for the Lucas Gusher Spindletop Oil Field National Historic Landmark and the SHPO's comments on the information;
- c. Golden Triangle files an avoidance plan, or the results of testing for site 41OR85, and the SHPO's comments on the plan or testing report;
- d. Golden Triangle files any required mitigation/treatment plan(s) and the SHPO's comments on any plan(s);
- e. any required consultation with the ACHP and NPS is completed; and
- f. the Director of OEP reviews and approves all reports and plans and notifies Golden Triangle in writing that it may proceed with mitigation/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.”**

11. **Prior to construction**, Golden Triangle shall file for review and written approval of the Director of OEP, brine disposal well drilling and leaching noise analyses and mitigation plans, indicating how noise levels would be controlled so they do not exceed a day-night sound level (L_{dn}) of 55 decibels on the A-weighted scale (dBA) at any nearby noise-sensitive area (NSA), or alternatively, what mitigation would be offered to the residents of those NSAs.

12. Golden Triangle shall file a noise survey with the Secretary **no later than 60 days** after placing the Central compressor station in service. If the noise attributable to the operation of all of the equipment at the Central compressor station at full load exceeds an L_{dn} of 55 dBA at any nearby NSAs, Golden Triangle shall file a report on what changes are needed and should install the additional noise controls to meet the level **within one year** of the in-service date. Golden Triangle should confirm compliance with the above requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls.