DG 15-155
Valley Green Natural Gas, LLC
EnergyNorth Set 1 to Valley Green Natural Gas, LLC

Date Request Received: 08/24/15 Date of Response: 09/03/15
Request No. EnergyNorth 1-10 Witness: Jonathan W. Carroll

REQUEST: Reference Campion testimony, page 6, lines 10-11 and Carroll testimony, page 1, line 19 through page 2, line 9. Please identify and provide details of Gulf's experience with regulated utility operations, including experience related to safety and inspection functions of regasification and other regulated facilities.

RESPONSE: Gulf does not currently operate and maintain a regulated natural gas utility system such as the one contemplated for Lebanon and Hanover. In fact, there are only a few communities in North America like it. However, Gulf plans to pull from its relative experience with: 1) terminal operations, 2) developing a liquefaction facility of its own in Pennsylvania, 3) operating and maintaining a fleet of LNG vehicles and associated fueling stations, 4) delivering to regulated LDC peak shaving facilities, 5) operating portable pipeline systems, and 6) designing satellite LNG storage and regasification systems for fuel oil customers. Furthermore, Gulf has hired an advisor, Kenneth Paul, who has over 40 years of experience in the LNG industry and is a senior member of the National Fire Protection Association (NFPA) 59A committee to help guide the Valley Green operations team. Ken has been involved in two projects similar to Valley Green in West Yellowstone, Wyoming and Fairbanks, Alaska. Ken has also served as a member of the Board of Directors for Essex Gas Company for 21 years, the Compressed Gas Association, and the American Gas Association's LNG Committee.

Gulf's strength is in logistics and terminal management with operational expertise in handling hazardous, flammable, and combustible refined petroleum products. Gulf owns and operates twelve oil terminals with 5 million barrels of storage, distributes over 3 billion gallons of fuel each year, and operates a fleet of bulk transport carriers. Gulf is a member of the International Liquid Terminals Association (ILTA), which develops industry best practices for safety and environmental excellence. The company has an impressive track record with zero OSHA related incidents over the past year.

Gulf's planned liquefaction facility in Great Bend, Pennsylvania will have operating procedures similar to that of Valley Green's facility. As such, supervisory, operating and maintenance personnel shall be qualified by training and experience to operate and maintain the plant. In addition to any local and state requirements the following Federal Safety Standards will guide development of operations and maintenance plans:

Safety Standards, 49CFR, Part 193 & NFPA 59A	
193.2503	(a) Monitoring Components
	(b) Startup & Shutdown
	(c) Abnormal Operating Conditions
	(d) Purging & Inerting Components

	(e) Vaporization
	(f) Liquefaction
	(g) Cooldown
	(h) Compliance with 193.2805 (b)
193.2505	Cooldown
193.2507	Monitoring Operations
193.2509	Emergency Procedures
	(b)(1) Controllable Emergencies
	(b)(2) Uncontrollable Emergencies
193.2511	Personnel Safety
193.2513	Transfer Procedures
	(a) Transfer of LNG
	(b) Transfer
	(c) Action Required 193.2515
193.2515	Investigation of Failures
193.2517	Purging
193.2519	Communication Systems
193.2521	Operating Records
193.2603	General
193.2605	Maintenance Plan
193.2607	Foreign Material
	(a) Contaminants and ice
	(b) Rubbish and fire hazards
193.2609	Supports
193.2611	Fire Protection
	(a) Maintenance Manual
	(b) Action
193.2613	Auxiliary Power
193.2615	Purging & Isolation
193.2619	Control Systems
	(a-d) Instrumentation
	(e) Relief Valves
193.2621	Transfer Hoses
193.2623	Tank
193.2625	Corrosion Protection
193.2627	Corrosion Atmospheric Corrosion Control
193.2629	External Buried Corrosion
193.2631	Internal Corrosion
193.2633	Interference Currents
193.2635	(a-c) Monitoring Corrosion
	(d) Atmospheric Corrosion
	(e) Internal Corrosion/Monitoring
193.2637	Remedial Measures

193.2639	Maintenance Records
193.2707	Operations & Maintenance
193.2709	Security Training
193.2711	Personnel Health
193.2713	Training, Operations & Maintenance
193.2715	Training; Security
193.2717	Training; Fire Protection
193.2719	Training; Records
NFPA 59A, Chapter 9	Fire Protection
NFPA 59A, Chapter 9	Fire Prevention Plan
NFPA 59A, Chapter 9	Smoking
NFPA 59A, Chapter 9	Open Fires
NFPA 59A, Chapter 9	Hotwork
NFPA 59A, Chapter 10	Storage of Flammable Fluids
NFPA 59A, Chapter 9	Motorized Equipment
NFPA 59A, Chapter 9	Fire Protection Equipment
NFPA 59A, Chapter 10	Gas Detection
NFPA 59A, Chapter 9	Fire Detection
193.2903	Security Procedures
193.2905	Protective Enclosure Construction
193.2907	Protective Enclosures
193.2909	Security Communications
193.2911	Security Lighting
193.2913	Security Monitoring
193.2915	Alternative Power Sources
193.2917	Warning Signs

As stated, Gulf is actively engaged in the supply, transportation and distribution of LNG and natural gas. The company's LNG transportation activities are regulated by the Federal Motor Carrier Safety Administration (FMCSA) and the Pipeline and Hazardous Materials Safety Administration (PHMSA), which outline procedures to determine the safety fitness of motor carriers to handle hazardous material. Gulf owns and operates three LNG vehicle fueling facilities and 44 LNG powered tractors. Vehicle fueling is guided by NFPA 57 Liquefied Natural Gas (LNG) Vehicular Fuel Systems Code. Gulf personnel have also operated portable pipeline systems, which provide a temporary supply of natural gas to a gas distribution system, and designed satellite storage and regasification systems for customers stranded from the traditional natural gas pipeline grid. These applications adhere to NFPA 59A Standards for the Production, Storage, and Handling of Liquefied Natural Gas (LNG).

Gulf has safely and reliably delivered LNG to 15 different LDC-owned peak shaving facilities throughout the Northeast including three terminals in New Hampshire. Prior to delivery, Gulf LNG Operations personnel visit each facility and familiarize themselves with the LNG operations manual, offload procedures and emergency response plans.

Gulf is also a member of the LNG Academy Steering Committee of the Northeast Gas Association (NGA), which coordinates annual LNG training programs and updates the regional LNG Trucking Emergency Plan. Gulf is also a member of the NGA's Public Awareness Committee, which coordinates regional education, communication and evaluation programs.

Lastly, Gulf is authorized by the U.S. Department of Energy to import up to 2 BCF of LNG into the U.S. from Canada and Mexico and by Canada's National Energy Board to export LNG into the U.S.

KENNETH L. PAUL

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EDUCATION

Drexel University, Philadelphia, Pennsylvania. B.S., Commerce & Engineering, 1963.

PROFESSIONAL EXPERIENCE

Self-Employed Consultant	2010 to present Specializing in Liquefied Natural Gas applications Clients include Gulf and others
Chart Industries	1990 to 2010, beginning with company's purchase of Process Engineering, Inc. President of Process Engineering Division, then Vice President of Large Cryogenic Systems (including LNG)
Process Engineering, Inc.	President, 1988 to 1990, Employed 1964 to 1990 Manufacturer of cryogenic storage and transport equipment. Family-owned business Plaistow, New Hampshire
Essex County Gas Company	Member, Board of Directors 1977 to 1998 Amesbury, Massachusetts
Family Savings Bank of NH	Former Member, Board of Directors Seabrook, New Hampshire
Family Bancorp	Former Member, Board of Directors Haverhill, Massachusetts

BUSINESS ACTIVITIES

Compressed Gas Association	Active Member of CGA for over 40 years Former Member, Board of Directors Former Vice Chairman, Safety and Environmental Steering Committee Former Chairman, Cryogenic and Low Temperature Committee
American Gas Association	Member, Liquefied Natural Gas Committee, 1970-80. Award of Merit, 1980
National Fire Protection Assoc.	Active Member of NFPA 59A for over 30 years

COMMUNITY ACTIVITIES

New Hampshire State Board of Education	Chairman, 1985-88, Member 1984-88
Timberlane Regional School Board	Chairman, 1980-81, 85-85, 89-90, Member 1977-90
Supervisory Administrative Unit 55 Board	Chairman, 1980-81, 88-89
Governor's Initiative for Excellence in Education	Vice Chairman, 1985-89
Christa McAuliffe Sabbatical Trust Fund	Trustee, 1986-88
Haverhill Chamber of Commerce	Member, Board of Directors, 1983-87, 1990-98 Vice President, Business Education Collaborative, 1990-93
Merrimack Valley United Fund	Member, Board of Directors, 1971-76
Lone Tree Boy Scout Council	Member, Board of Directors, 1971-86, President, 1976-77
Plaistow Area Commerce Exchange	Member, Board of Directors, 1990-92, Member, 1985-98
Community Arts Foundation	Member, Board of Directors, 1988-92
New Hampshire Business Roundtable	Professional Initiative, 1993-98

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PROFESSIONAL EXPERIENCE

1964	After eight months active duty in the U.S. Coast Guard, joined the Accounting Department of Process Engineering. Set up job cost system for vessel fabricating Factory of 150 employees with the assistance of outside auditors, Touche Ross.
1965	Negotiated with State of New Hampshire and banks to build 'green field' factory in Plaistow, New Hampshire.
1966	Supervised the design, building and occupancy of the 100,000 square foot factory.
1967	Moved into Product Management and developed first full-size LNG highway Trailers. Installed the country's first LNG satellite facility n Cape Cod.
1970-80	Active member of the American gas Association LNG Committee.
1970's	Developed standard line of liquid oxygen tanks. Lead PEI to be the largest supplier Of cryogenic storage vessels in the United States and Canada.
1978	Became Executive Vice President responsible for sales and manufacturing.
1980	Negotiated with State of Arkansas, city of Pine Bluff and financial institutions for the construction and operation of a fabricating facility.
1981-83	Oversaw start-up and operating of Arkansas factory.
1984	Negotiated sale of Arkansas factory.
1984	Worked with government regulators and NFPA on LNG matters.
1986	Appointed President and CEO, responsible for all day-to-day operations. Introduced Deming philosophy and adopted "Continuous Improvement" as the corporate foundation.
1988-1992	In cooperation with Union Pacific and Burlington Northern Railroad, worked extensively to develop the use of LNG as railroad engine fuel. Created railroad tender car for the transport of LNG.
1990	Negotiated sale of the company to Chart Industries.
1990-2010	For Chart, President Process Engineering Division, then Vice President Large Cryogenic Systems.
2010-present	Self-employed consultant specializing in LNG