

January 27, 1994

Mr. Massoud Tahamtani
Utilities Manager
Virginia State Corporation Commission
Box 1197
Richmond, VA 23209

Dear Mr. Tahamtani:

Thank you for your letter of December 20, 1993, regarding the use of mobile Liquefied Natural Gas (LNG) facilities in Virginia. You describe Virginia State Corporation Commission (Commission) approval of a petition by Virginia Natural Gas Company, Inc. (Petitioner) for waiver of 49 CFR 193 for mobile LNG facilities.

Petitioner states that two areas of its Southern Division suffer deficiencies in gas availability during winter peak load periods. Petitioner is installing additional piping to meet the demand, but the piping will not be fully available until 1995. In the interim, Petitioner requests permission to utilize two mobile LNG injection units to meet demand. In justification of the waiver, Petitioner points to a long history of safe use (without incident) of mobile LNG facilities in Virginia and elsewhere. Utilization has been predominately in pipeline maintenance and emergency gas supply capacity. The Commission evaluated the petition and determined that use of mobile LNG facilities is necessary and essential for Petitioner to maintain continuous and uninterrupted service during emergency conditions. Further, the Commission granted Petitioner's request for waiver of Part 193 subject to a list of alternate safety requirements for mobile LNG units as outlined in the Commission's December 17, 1993 order granting the waiver.

Based on the findings of fact and the alternate safety requirements for mobile LNG units adopted and imposed by the Commission, we believe that use of mobile LNG facilities under the alternate safety requirements would not be a danger to public safety. Accordingly, the waiver is not inconsistent with pipeline safety. For this reason, we do not object to the waiver as granted.

Sincerely,
George W. Tenley, Jr.
Associate Administrator for Pipeline Safety

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

AT RICHMOND, DECEMBER 17 , 19 9 3

APPLICATION OF

VIRGINIA NATURAL GAS, INC.

CASE NO. PUE930068

For waiver of gas pipelines safety requirements
of 49 C.F.R. Part 193

ORDER GRANTING WAIVER

The Natural Gas Pipeline Safety Act, 49 U.S.C. Section 167 et. m. ("Act"), require§ the Secretary of Transportation ("Secretary") to establish minimum federal safety standards for the transportation of gas and pipeline facilities. The Secretary is authorized to delegate that authority to prescribe safety standards and enforce compliance with such standards over gas pipeline facilities used for intrastate transportation to an appropriate state agency. The Virginia State Corporation Commission ("Commission") has been designated as the appropriate state agency for the Commonwealth of Virginia. In Case No. PUE890052, the Commission adopted parts 191, 192, 193, and 199 of Title 49 of the Code of federal regulations to serve as minimum gas pipeline safety standards in Virginia ("Safety Standards"). Pursuant to 49 U.S.C. Section 1672(d) the Commission may waive compliance with a Safety Standard upon its determination that the waiver is not inconsistent with gas pipeline safety, provided the U.S. Secretary of Transportation is given written notice at lease 60 days prior to the effective of the waiver.

On September 1, 1993, Virginia Natural Gas, Inc. ("VNG" or "the Company") mailed a letter to the Commission's Division of Energy Regulation requesting a waiver of the Safety Standards found at 49 C.F.R. Part 193 which regulate Liquefied Natural Gas ("LNG") facilities. In particular, the Company requests permission to use portable LNG injection units for emergency use during cold weather conditions in the Company's Courthouse/Sandbridge area located in the Southern Virginia Beach and in the Southern Chesapeake areas.

VNG states that it first recognized its system deficiency last winter and began an intense construction program this summer to provide additional system capacity through backfeed and redundant feeder mains. To meet current loads, as well as projected load growth, Company plans to construct a new 15-mile large diameter, high pressure distribution pipeline from its Southern Division Gate Station to the Courthouse/Sandbridge vicinity of Virginia Beach. Permitting, processing and construction of this pipeline will require a minimum of 24 months. VNG states that the pipeline will not be available for full service until December 1995 at the earliest, even though portions of it may be placed in service earlier and contribute to the alleviation of the deficiencies.

Notwithstanding the system improvements which have been accomplished this summer, VNG believes the most prudent means to address its isolated low pressure conditions and potential customer outages in the above described areas is to provide for the temporary use of a portable LNG injection units. The Company proposes to site this equipment at the two separate locations described above for the December through March period of the next two winter seasons (1993 - 94 and 1994 - 95). The Company will insure gas ordorization and the use of industry accepted safe operating practices including site security.

On November 12, 1993, the Commission entered an Order for Notice and Inviting Comments ("Order") which treated the Company's letter of September 1, 1993 as an application for waiver ("Application" or "Request for Waiver") and prescribed the notice VNG must give of its Application. VNG was required to serve various public officials with a copy of the Order by November 22, 1993, and was also required to publish in newspapers of general circulation a specific notice of its Request for Waiver by November 22, 1993. Both the Order and the published notice detailed procedures providing an opportunity for the public to comment or request a hearing on VNG's application. On December 6, 1993, the Company filed its proof of notice and service. No comments or requests for hearing were filed in this matter.

On December 6, 1993, Commission Staff filed its Report on VNG's Application. In its Report, Staff found that the use of mobile LNG units to provide continuous gas service during emergency conditions caused by cold weather in VNG's Southern Division, when coupled with the alternate safety provisions contained in attachment number 2 of Staff's Report ("Alternate Safety Provisions"), is not inconsistent with gas pipeline safety. Accordingly, Commission Staff recommended that VNG be granted a waiver of 49 C.F.R. Part 193 for the use of mobile LNG units in its Southern Division during the 1993 - 94 and 1994 - 95 winter seasons, provided that the waiver expire on April 1, 1995, and that VNG be required to comply with the Alternate Safety Provisions outlined in Staff's report .

The Commission, upon consideration of this matter, is of the opinion and finds that granting VNG's Request for Waiver, while ordering the Company to comply with Staff's Alternate Safety Provisions, is not inconsistent with gas pipeline safety; that the requested waiver shall become effective within 70 days from the date of this Order unless modified by further order of the Commission; and that the U.S. Secretary of Transportation be informed forthwith of the Commission's action. Accordingly,

IT IS ORDERED:

- (1) That VNG be, and it hereby is, granted a waiver of 49 C.F.R. Part 193 (Subpart B) for use of portable LNG injection units described herein for the 1993 - 94 and 1994 - 95 winter seasons;
- (2) That this waiver expires on April 1, 1995;
- (3) That while this waiver is in effect, VNG is required to comply with the Alternate Safety Provisions attached hereto as Attachment A, in addition to all other Safety Standards; and
- (4) That this waiver shall become effective 70 days from the date of this order, unless modified by further order of the Commission.

AN ATTESTED COPY hereof shall be sent by registered mail, return receipt requested, to the U.S. Secretary of Transportation, c/o George W. Tenley, Jr., Associate Administrator for Pipeline Safety, U.S. Department of Transportation, Research and Special Programs Administration, 400 Seventh Street, S.W., Washington, D.C. 20590.

ATTESTED COPIES shall also be sent to: Jerry L. Causey, Vice President of Operations, Virginia Natural Gas, Inc., 5100 East Virginia Beach Boulevard, Norfolk, Virginia 23502-3488; and Donald A. Fickenscher, Esquire, General Counsel and Corporate Secretary, Virginia Natural Gas, Inc., 5100 East Virginia Beach Boulevard, Norfolk, Virginia 23502-3488; Edward L. Petrini, Esquire, Office of the Attorney General, 101 North 8th Street, 8th Floor, Richmond, Virginia 23219; and the Commission's Division of Energy Regulation.

A True Copy Teste: William I. Bridge
 Clerk of the State Corporation Commission

SAFETY PROVISIONS FOR MOBILE LNG UNITS

1. All LNG transports must be designed, constructed, initially tested, operated and maintained in accordance with applicable federal law and regulations. The distribution system operator must verify that the LNG transport and equipment is in compliance with the applicable regulations.
2. All portable LNG equipment must be operated by at least one person qualified by experience and training in the safe operation of these systems. All other operating personnel, at a minimum, must be qualified by training.
 - a. Operating personnel must demonstrate their capability to perform their assigned functions by:
 - (1) Successful completion of the training required by provision 2c and 12.
 - (2) Experience related to the assigned operation function.
 - b. All other maintenance and support personnel, who do not meet the requirements of 2a but are qualified by experience or training to perform their assigned functions, may perform their duties while equipment is connected to the pipeline transporting the vaporized LNG only when supervised by an individual who meets the requirements of 2a.
 - c. Each operator shall provide and implement a written plan of initial training to instruct all designated operating, and supervisory personnel, including:
 - (1) The characteristics and hazards of LNG used or handled at the site, including, with regard to LNG, low temperatures, flammability of mixtures with air, odorless vapor, boil off characteristics, and reaction to water and water spray;
 - (2) The potential hazards involved in operating activities;
 - (3) Operating procedures and responsibilities that relate to their assigned functions;
 - (4) The emergency procedures that relate to their assigned functions; and
 - (5) Detailed instructions on the mobile LNG operations.
 - d. Each operator shall have a written plan of continuing instruction that must be conducted at intervals of not more than two years to keep all operating and supervisory personnel current on the knowledge and skills they gained in the program of initial instruction. [Reference: 49 C.F.R. Sections 193.2707 and 2713 to 2719]
3. All portable LNG equipment must be sited to minimize the possible hazard to the public, and any present or foreseeable hazard to the equipment, consistent with the need to provide the service. [Reference: 49 C.F.R. Sections 193.2071]
4. Portable LNG equipment must be reasonably protected against vehicular damage.
5. Provision must be made for safely controlling leakage of LNG from valves, pipes, vaporizers or hoses, and compliance with the following:
 - a. Each transfer of LNG fluid must be conducted in accordance with written procedures to provide for safe transfers.
 - b. The transfer procedures must include provisions for personnel to, before transfer; verify that the transfer system is ready for use, with connections and controls in proper positions.
 - c. In addition to the requirements of provision 5b of this section, the procedures for pipeline transfer must be available and include provisions for personnel to:
 - (1) Be in constant attendance during all pipeline transfer operations;
 - (2) Prohibit the backing of tank trucks in the transfer area, except when a person is positioned at the rear of the truck giving instructions to the driver; and
 - (3) Before transfer, verify that:

- (i) All transfer hoses have been visually inspected for damage and defects;
- (ii) Each tank truck is properly immobilized with chock wheels;
- (iii) Each tank truck engine is shut off unless it is required for transfer operations;

- (4) Prevent a tank truck engine that is off during transfer operations from being restarted until the transfer lines have been disconnected and any released vapors have dissipated;
- (5) Verify that all transfer lines have been disconnected and equipment cleared before the tank truck is moved from the transfer position; and
- (6) Verify that all transfers into a pipeline system will not exceed the pressure or temperature limits of the system. [Reference: 49 C.F.R. Section 192.2513]

6. Provisions must be made to minimize the possibility of accidental ignition in the event of a leak.

7. Provisions must be made to ensure that the introduction of vaporized LNG will not, to the extent feasible, reduce the odorization level of the system gas below the level required by applicable federal and state regulations. [Reference: 49 C.F.R. Section 192.625]

8. All portable equipment must be continuously attended during the time the LNG transport is connected to the other portable equipment, or other means of continuous monitoring must be maintained.

9. The portable LNG equipment must be periodically monitored for leakage by leakage detection equipment when the LNG transport is connected to the other portable equipment.

10. Provisions must be made to restrict access by the general public when the LNG transport is connected to the mobile LNG equipment.

11. Portable fire fighting equipment must be present at all times and properly maintained to allow for effective control of LNG or natural gas fires at the site. To the extent practicable, portable fire control equipment must have operating instructions. Instructions must be attached to portable fire equipment. [Reference: 49 C.F.R. Section 193.2817]

12. Personnel operating the portable LNG equipment must be trained in the proper use of such fire fighting equipment. Each operator shall use sound fire protection engineering principles to minimize the occurrence and consequences of fire. [Reference: 49 C.F.R. Section 193.2803]

13. Provisions must be made to continuously monitor the portable equipment as to the impact on the distribution system being served to ensure appropriate pressures and temperatures are being maintained.

14. Means of communication must exist between the personnel operating the portable LNG equipment and an operating center of the applicant and local emergency authorities. The operating center must be staffed 24 hours per day every day the mobile installation is in place. Each mobile equipment site must have a primary communication system that provides for verbal communications. [Reference: 49 C.F.R. Section 193.2519]

15. The Commission's Division of Energy Regulation ("Division") must be provided, at least 30 days prior to use of a portable LNG facility, with the details of siting, leakage containment or control, the provision of fire fighting equipment, and means to restrict public access. Upon review of the details, the Company shall comply with any modification, cessation of the operation or removal of equipment. Additionally, the Company shall submit a current site plan of the proposed installation and properties within five hundred feet of the property where the installation is to be made. The site plan shall include all existing and proposed conditions, including but not limited to pipelines, storm drainage in the area, exact location of the equipment, parking and driveway areas, traffic control and barriers, security fences and barriers, traffic and security signs, lighting, etc. A key map showing the general location of the proposed site shall also be

included with the plans. The written plan submitted under these provisions shall, using sound engineering practices, describe how the installation shall meet and monitor these provisions. These provisions shall, at a minimum, include operations, maintenance, emergency and security procedures. Furthermore, these provisions shall include any additional procedures necessary for the safety of the operators of the installation and the public.

16. The operator will provide training pertinent to the mobile LNG equipment and LNG in general, to the local fire fighting agency 48 hours before any installation is used. The local fire fighting agency must be notified of the installation of the portable LNG equipment at least 48 hours prior to the operation of the equipment, except that in the case of emergency where such notice is not possible, as much notice as possible must be provided.

17. The operator shall maintain a record of any inspection, test, investigation, or training required by these safety provisions. Such records must be kept for a period of not less than three years.