

U.S. Department of Transportation  
Research and Special Programs Administration  
400 Seventh Street S.W.  
Washington, D.C. 20590

JAN 29 1991

Mr. James D. Anderson  
Director, Pipeline Safety Section  
State of North Carolina Utilities commission  
P.O. Box 29510  
Raleigh, N.C. 27626-0510

Dear Mr. Anderson:

As required by 49 U.S.C. 60118(d), your letter of October 28, 1996, forwarded a waiver of compliance from the requirements of 49 CFR Part 193 granted by the State of North Carolina Utilities Commission on October 22, 1996, to the Greenville Utilities Commission (GUC), to operate a portable Liquefied Natural Gas (LNG) vaporization unit at Greenville, North Carolina. The waiver would allow GUC to operate and maintain a portable LNG equipment connected to the distribution system at Greenville, North Carolina, to assist them in meeting their peak day needs. The Commission granted GUC's request for waiver subject to a list of alternate safety provisions described in the attached petition.

Based on the reasons presented in your grant of waiver, and the conditions placed on GUC for use of portable LNG equipment to meet peak load conditions in the Greenville area, the Research and Special Programs Administration does not object to the grant of waiver of those provisions of 49 CFR Part 193 as specified under the waiver request.

Sincerely,  
Richard B. Felder Associate  
Administrator for Pipeline Safety

State of North Carolina  
Post Office Box 29510  
Raleigh, N. C. 27626-0510  
October 28, 1996

Richard D. Huriaux  
Director, Office of Technology and Regulations  
US Department of Transportation  
Research and Special Programs Administration  
Office of Pipeline Safety  
400 Seventh Street, SW., Room 2335  
Washington, DC 20590

Dear Mr. Huriaux:

The North Carolina Utilities Commission has received and granted an application for a waiver for the Greenville Utilities Commission, PO Box 1847, Greenville, North Carolina, (919) 752-7166, a municipal operator, to operate a portable liquefied natural gas vaporization unit. This unit will assist them in meeting their peak day needs to serve the citizens of Greenville, North Carolina.

This is the same request and wavier granted by the Office of Pipeline Safety to other states for their operators to operate portable/mobile liquefied natural gas units in relieving them of the burdensome siting regulations set forth in Part 193. Also, this wavier is in effect until such new DOT standards are in effect.

Greenville Utilities Commission wishes to start this mobile liquefied natural gas vaporization unit as of December 1, 1996. Your expedient response to this waiver request will be most appreciated.

Sincerely,  
James D. Anderson  
Director, Pipeline Safety Section

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. G-32, SUB 1

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of .

Application of Greenville Utilities Commission	)	
of the City of Greenville, North Carolina	)	ORDER GRANTING APPLICATION
For a Waiver of Regulations at 49 C.F.R. Part	)	FOR WAIVER
193 Pursuant to the Public Utilities Act	)	
and NCUC Rule R6-39(c)	)	

BY THE COMMISSION: On September 27, 1996, the Commission received an application from Greenville Utilities Commission of the City of Greenville, North Carolina (GUC) for a waiver of Regulations at 49 C.F.R. Part 193, the provisions of G.S. 62-50, NCUC Rule R6-39(c), or any other statute or regulation which the Commission has the power to enforce, which would prevent GUC from utilizing portable Liquefied Natural Gas (LNG) as an emergency gas supply under the conditions and for the purposes set forth herein. GUC alleges that compliance with Part 193 regarding mobile LNG equipment would be unduly burdensome and economically inefficient in the provision of service to its customers, without providing any significant worker or public safety benefit.

On October 9, 1996, GUC submitted the following additional information:

1. Supplement information on the supply of LNG, transportation of LNG and training of personnel. Exhibits of the contract with Distrigas, lease agreement with Transgas and preliminary site plan for portable vaporizer;
2. Supplement transmittal from Mr. Richard D. Hurliaux of the U.S. Department of Transportation (DOT).

GUC is a municipal gas utility operating and maintaining a gas system in accordance with DOT Pipeline Safety Regulations 49 C.F.R. Parts 191, 192, 193 and 199 and maintains its principal offices at 200 West Fifth Street, Greenville, Pitt County, North Carolina, 27835-1847. GUC is engaged in the transportation of gas, as defined in Section 2 of the Natural Gas Pipeline Safety Act of 1968 (NGPSA), as amended, which has recently been codified at 49 U.S.C. §60101. According to the application, to meet peak day requirements of firm natural gas customers of the GUC's gas distribution system, GUC contemplates utilization of a portable LNG vaporizer supplied with LNG brought in in four LNG tanker trucks.

G.S. 62-50(a) authorizes the Commission to promulgate and adopt safety standards for the operation of natural gas pipeline facilities in North Carolina. G.S. 62-50(b) authorizes the Commission to enter into agreements with the DOT for the regulation of natural gas pipelines located within the state. Pursuant to G.S. 62-50(b), the Commission, in Rule R6-39(c), has adopted the Federal Pipeline Safety Regulations set forth at 49 C.F.R. Part 193, as amended from time to time, as the minimum safety standards for public gas utilities operating LNG facilities in North Carolina.

The regulations which appear at 49 C.F.R. Part 193 concerning LNG facilities are the focus of this Petition. GUC states that on November 2, 1992, DOT issued an opinion stating that mobile LNG facilities were subject to the provisions of 49 C.F.R. Part 193. GUC has concluded that applying the requirements of Part 193 to mobile LNG equipment would be unduly burdensome and economically inefficient in the provision of service to its customers, without providing any significant worker or public safety benefit. GUC requests a waiver from enforcement and applicability of regulatory provisions of Part 193 for equipment that DOT has designated as mobile LNG facilities.

GUC's Petition points out that DOT acknowledges in its November 2, 1992 opinion, that the "siting requirements

of Part 193 may be difficult or overly burdensome for some mobile LNG facilities, considering the temporary nature of their use at particular sites." Furthermore, GUC contends that the regulatory burden is compounded since many subparts and sections of Part 193 are interwoven into the siting requirements, which are particularly suited for permanent (i.e., immobile) LNG storage facilities.

GUC's Petition maintains that DOT invited comments that may offer alternative requirements "to lighten the compliance burden without sacrificing safety." GUC states that this is a welcomed invitation since these units represent a valued pipeline and consumer resource especially when no equivalent or alternative resource is available to the Petitioner and its customers.

GUC offers a list of alternative safety provisions to govern the use of mobile LNG equipment in this Petition. Along with requesting the waiver from the requirements of Part 193, the Petitioner encourages DOT to consider incorporating these provisions as part of a future regulation that distinguishes mobile LNG equipment from permanent facilities.

The following provisions are offered as an alternative to DOT's opinion requiring compliance with Part 193. Incorporated into these provisions are safety aspects from various sections of Part 193 that would provide for substantially equivalent and reasonable level of safety when utilizing mobile (or portable) LNG equipment.

1. All LNG transports must be designed, constructed, initially tested, operated and maintained in accordance with applicable federal, state, and municipal laws and regulations. (Note: GUC is not requesting a waiver of regulations applicable to LNG transports because the proposed operations will be in complete compliance with the regulations.)
2. All mobile (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. To the extent practicable, operators should comply with the following training provisions:
  - a) Each operator shall utilize, for operation of components, only those personnel who have demonstrated their capability to perform their assigned functions by:
    - i) Successful completion of the training required by sections 2c and 12 of these safety provisions; and
    - ii) Experience related to the assigned operation function.
  - b) All other maintenance and support personnel who do not meet the requirements of section 2a of these safety provisions but are qualified by experience or training to 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 section 2A of these safety provisions.
  - c) Each operator shall provide and implement a written plan of initial training to instruct all designated operating and supervisory personnel which addresses the following conditions:
    - i) The characteristics and hazards of LNG used or handled at a site, including: cryogenic properties, flammability of mixtures with air, sensory imperceptibility, boil-off characteristics, and reaction to water and water spray;
    - ii) The potential hazards involved in operating activities;
    - iii) Those aspects of the operating procedures that relate to their assigned functions;

- iv) The implementation of the emergency procedures that relate to their assigned functions; and
    - v) An understanding of the 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 instructions.
3. To the extent practicable, all mobile LNG equipment must be sited so as to minimize the possible hazard to the public, and any present or reasonably foreseeable hazard to the equipment, consistent with the need to provide service.
4. To the extent practicable, mobile (portable) LNG equipment must be reasonably protected against vehicular damage.
5. Reasonable provisions must be made for safely controlling leakage of LNG from valves, pipe, vaporizers or hoses. Operators shall comply with the following pipeline transfer provisions:
- 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 verify the readiness of the transfer system with connections and controls in proper positions;
  - c) In addition to the requirements of safety provision 5(b), the transfer procedure must include provisions for personnel to:
    - i) Be in constant attendance during all pipeline transfer operations;
    - ii) 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;
    - iii) Before transfer, verify that:
      - a) All transfer hoses have been visually inspected for damage and defects;
      - b) Each tank truck is properly immobilized with chocked wheels; and
      - c) Each tank engine is shut off unless it is required for the transfer operations or other transport operational needs;
    - iv) Prevent a tank truck engine that is off during transfer operations from being restarted until transfer lines have been disconnected and any released vapors have dissipated;
    - v) Verify that all transfer lines have been disconnected and equipment cleared before the tank trucks are moved from the transfer position; and
    - vi) Verify that transfers, from mobile LNG equipment, into a pipeline system will not exceed the pressure or temperature limits of the system.

6. Reasonable provisions must be made to minimize the possibility of accidental ignition in the event of a leak.
7. Reasonable provisions must be made to ensure that the introduction of vaporized LNG will not, to the extent practicable, reduce the odorization level of the system gas below that required by 49 C.F.R. Part 192.625.
8. All mobile (portable) LNG equipment must be continuously attended during the time LNG transport is connected to the other mobile equipment, or other means of continuous monitoring must be maintained.
9. The mobile (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. Reasonable provision must be made to restrict access by the general public when the LNG transport is connected to the mobile (portable) LNG equipment.
11. Portable fire fighting equipment must be at hand at all times, and be properly maintained, to allow for effective control of LNG or natural gas fires at the site. Instructions must be attached to portable fire fighting equipment.
12. Personnel operating the mobile (portable) LNG equipment must be trained in the proper use of such fire fighting equipment. To the extent practicable, each operator shall use sound fire protection engineering principals to minimize the occurrence and consequences of fire.
13. Reasonable provisions must be made to continuously monitor the mobile (portable) LNG equipment as to its impact on the distribution system being served, to ensure appropriate pressures and temperatures are being maintained.
14. A means of communication must exist between the personnel operating the mobile (portable) LNG equipment and a manned operating center and local emergency authorities. To the extent practicable, each mobile equipment site must have a primary communication system that provides for verbal communications.
15. The Petitioner will notify the Commission and provide description of the location and installation at least two weeks prior to the activity commencing. The description will include, to the extent practicable, the details of the siting, leakage containment or control, means to restrict public access and access for fire fighting equipment. The Commission may require an operator to amend its operating plans, as necessary, to provide a reasonable level of safety, after written notification and opportunity for hearing in accordance with applicable regulations or procedures of the GUC.
16. To the extent practicable, the operator will provide training pertinent to the mobile LNG equipment and LNG in general, to the local fire fighting agency. The local fire fighting agency must be, notified of the installation of the mobile (portable) LNG equipment at least 7 days prior to the operation of the equipment; except that in the case of emergency where such notice is not possible, as much as possible must be provided.

In the additional information submitted by GUC on October 9, 1996, GUC stated that four LNG trucks capable of carrying 9,000 to 10,000 gallons of LNG and owned by Transgas, Incorporated of Lowell, Massachusetts will transport GUC's LNG supply. The drivers of the trucks are required to comply with DOT, Federal Highway Administration Regulations 49 C.F.R. Part 395 and the trucks must meet the standards outlined in those regulations. The LNG will be transported from either Everett, Massachusetts, Trussville, Alabama or Charleston, South Carolina. The trucks will travel the interstate highway system whenever possible. GUC notes that the petition does not request any waivers for the transportation of the LNG as the transportation will comply with all DOT regulations for transporting hazardous material.

The additional information stated that the site will be prepared in accordance with the National Fire Protection Association (NFPA) Standard 59A. The site plan for the LNG vaporizer contains all the distances required by NFPA

Standard 59A, Section 2.3.4.

The additional information also stated that the GUC portable LNG vaporizer will be operated during the first year by Mr. Chris Hosford, Consultant with CHI Engineering. Mr. Hosford has over ten years of experience operating LNG vaporizers. During the first year, Mr. Hosford will train the Director of the Gas System, the Gas System Engineer and the Gas System Superintendent to operate the LNG vaporizer and will certify the personnel via an exam.

The October 9, 1996 additional information included a memorandum from Mr. Richard D. Huriaux, Director, Technology & Regulations, Office of Pipeline Safety, Research and Special Programs Administration, DOT to Mr. Anthony Miller, Director, Gas Department, GUC. Mr. Huriaux states that DOT's Office of Pipeline Safety is very close to approving a Final Rule to adopt safety standards for mobile LNG facilities used by gas distribution companies to meet service requirements. Mr. Huriaux expects the Rule to become effective by the end of .calendar year 1996 and states that the adoption of this Rule will negate the need to request waivers for the use of mobile LNG facilities. He also adds that DOT and state agents of DOT have routinely approved waivers for mobile LNG facilities that complied with the safety requirements of NFPA Standard 59A and that he sees no problem from a technical or regulatory viewpoint with the approval of GUC's waiver request in the short period remaining before the Final Rule is approved.

In its Petition, GUC states that it is worth noting that mobile LNG units have been safely operated, without incident, for over 28 years. Based on the many years of safe operation of mobile LNG equipment, GUC's need, and the recommendations to adopt the alternative safety provisions, (which will provide for a substantially equivalent and reasonable level of safety) GUC respectfully requests relief from the requirements of Part 193 applicable to mobile LNG equipment. Part 193, as written, should be applicable only to permanent LNG storage facilities. GUC states that the sixteen alternative provisions in its Petition are offered and recommended for possible incorporation into Part 193 as regulations governing only mobile LNG equipment.

According to the Petition, in 1993 & 1994, the state regulatory commissions of Connecticut, New Hampshire, Massachusetts and Rhode Island have approved similar requests. Also, the state regulatory commissions of Virginia and Pennsylvania have approved similar requests. These state commissions have all forwarded these petitions, with similar alternative safety provisions, to DOT for final confirmation. DOT has approved these waivers in a most expeditious manner.

On the basis of the application, the Commission finds good cause to allow the waiver on the following conditions:

- A. That GUC construct and operate its mobile LNG facilities pursuant to the sixteen alternative safety provisions proposed in the Petition, and any other regulations and requirements that may be promulgated by DOT to deal with mobile LNG facilities; and
- B. That GUC's compliance with the sixteen alternative safety provisions shall remain in effect until such time as new DOT standards are in effect.

IT IS, THEREFORE, ORDERED that GUC be granted the requested waiver from compliance with the provisions of NCUC Rule R6-39(c) and the federal safety standards under 49 C.F.R. Part 193 adopted therein so as to allow GUC to use a mobile LNG vaporization system of its transmission pipelines on the conditions set forth above.

ISSUED BY ORDER OF THE COMMISSION.

This the 22nd day of October, 1996.

NORTH CAROLINA UTILITIES COMMISSION

Gail L. Mount, Deputy Clerk