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Part II

**Department of
Transportation**

**Research and Special Programs
Administration**

49 CFR Part 171, et al.

**Hazardous Materials: Cargo Tank Motor
Vehicles in Liquefied Compressed Gas
Service; Revisions and Response to
Petitions for Reconsideration; Final Rule
Hazardous Materials: Safety Standards for
Unloading Cargo Tank Motor Vehicles in
Liquefied Compressed Gas Service;
Advance Notice of Proposed Rulemaking;
Proposed Rule**

DEPARTMENT OF TRANSPORTATION

Research and Special Programs
Administration

49 CFR Part 171

[Docket No. RSPA-97-2133 (HM-225)]

RIN 2137-AC97

Hazardous Materials: Cargo Tank
Motor Vehicles in Liquefied
Compressed Gas Service; Revisions
and Response to Petitions for
ReconsiderationAGENCY: Research and Special Programs
Administration (RSPA), DOT.ACTION: Final rule; response to petitions
for reconsideration.

SUMMARY: RSPA is revising and extending requirements issued in an interim final rule (IFR) on February 19, 1997. Revisions are being made to address commenters' concerns particularly in the area of operator attendance requirements and to improve safety. The rule adopts temporary requirements for cargo tank motor vehicles in certain liquefied compressed gas service. It requires a specific marking on affected cargo tank motor vehicles and requires motor carriers to comply with additional operational controls intended to compensate for the inability of passive emergency discharge control systems to function as required by the Hazardous Materials Regulations. The interim operational controls specified in this rule will improve safety while the industry and government continue to work to develop a system that effectively stops the discharge of hazardous materials from a cargo tank if there is a failure of a transfer hose or piping.

These operational controls are necessary because a substantial portion of the industry failed to comply with an important excess flow requirement, which has been in place since 1941, and has failed to comply with the IFR. Because of this widespread non-compliance, RSPA also published in today's **Federal Register** an advance notice of proposed rulemaking (ANPRM) soliciting data to serve as a basis for future rulemaking. This advance notice addresses a number of other issues, including the ability of industry to meet a possible 1-, 2- or 3-year retrofit schedule; standards for the qualification, testing and use of hoses used in unloading; safety procedures for persons performing unloading operations; and, whether the Federal government should continue to regulate in this area.

EFFECTIVE DATE: August 16, 1997.

FOR FURTHER INFORMATION CONTACT: Ronald Kirkpatrick, Office of Hazardous Materials Technology, RSPA, Department of Transportation, 400 Seventh Street, S.W., Washington, DC 20590-0001, telephone (202) 366-4545, or Nancy Machado, Office of the Chief Counsel, RSPA, Department of Transportation, 400 Seventh Street, S.W., Washington, DC 20590-0001, telephone (202) 366-4400.

SUPPLEMENTARY INFORMATION:

I. Background

A. Overview

Among the liquefied compressed gases most commonly transported throughout the nation in DOT specification cargo tank motor vehicles are petroleum gases, anhydrous ammonia and chlorine. The risk of personal injury due to accidental releases is high for each of these, and, in the case of propane, the additional threat of fire and explosion must be considered. When liquid propane is released into the atmosphere, it quickly vaporizes into the gaseous form which is its normal state at atmospheric pressure. This happens very rapidly, and in the process, the propane combines readily with air to form fuel-air mixtures which are ignitable over a range of 2.2 to 9.5 percent by volume. If an ignition source is present in the vicinity of a highly flammable mixture, the vapor cloud ignites and burns very rapidly (characterized by some experts as "explosively").

Since September 8, 1996, renewed attention was focused on the dangers of propane when more than 35,000 gallons were released during delivery to a bulk storage facility in Sanford, North Carolina. Fortunately, ignition did not occur. This incident led to the issuance of a safety advisory notice on December 13, 1996 (61 FR 65480), and an interim final rule (IFR) on February 19, 1997 (62 FR 7638). However, concerns over controlling the unintended release of hazardous materials have been expressed for decades.

B. Emergency Discharge Controls

Operations involving the transfer of liquid and gaseous hazardous materials to, from, or between bulk packagings, such as cargo tank motor vehicles, are recognized as posing a significant threat to life and property in transportation. For that reason, the Hazardous Materials Regulations (HMR; 49 CFR parts 171-180) place special emphasis on emergency discharge controls, including requirements for excess flow valves and internal self-closing stop valves that

close automatically upon sensing a line separation. Additionally, the HMR require a mechanical and/or thermal means of activating the internal self-closing stop valve. The effectiveness of these properly installed and maintained safety appliances in safeguarding life and property at the critical moment of an unintentional release of extremely hazardous materials is well demonstrated and has historically been widely recognized by representatives of industry, emergency response organizations, and other affected parties.

In the case of specification MC 330 and MC 331 cargo tank motor vehicles authorized for the transportation of certain liquefied compressed gases, Federal requirements for emergency discharge controls first appeared as regulations issued by the Interstate Commerce Commission (ICC) on November 8, 1941, in Docket 3666. Requirements applicable to specification MC 320 cargo tank motor vehicles and ICC specification MC-7.6-S-1.2 have been modified slightly by RSPA over the years, but essential elements of the regulations pertaining to excess flow valves and internal self-closing stop valves are unchanged. This rule applies also to provisions for secondary remote controls and for fusible links, which cause the internal valve to close automatically in case a cargo tank is involved in a fire. Again, related requirements in the HMR today share the same essential elements as those originally ordered over fifty years ago.

Section 178.337-8(a) states "* * * each opening in a cargo tank intended for use in transporting compressed gas (except carbon dioxide, refrigerated liquid) must be—(i) closed with a plug, cap or bolted flange; (ii) protected with an excess flow valve on product discharge openings or protected with a check valve on product inlet openings; or (iii) fitted with an internal self-closing stop valve as specified in § 178.337-11(a)." Currently, most specification MC 330 and MC 331 cargo tank motor vehicles are fitted with an internal self-closing stop valve which incorporates an excess flow feature. However, the requirement in § 178.337-11(a)(1)(i), that "each self-closing stop valve and excess flow valve must automatically close if any of its attachments are sheared off or if any attached hoses or piping are separated," can be met by manufacturers and operators of specification MC 330 and MC 331 cargo tank motor vehicles using internal self-closing stop valves which have no excess flow feature. The key requirement is that the discharge valve must automatically close if any of its

attachments are sheared off or if any attached hoses or piping are separated. Any other equipment, such as a system which measures a differential in pressure, a pressure drop, or a hose or piping separation, which automatically closes the internal self-closing stop valve on the cargo tank and stops the discharge of product in the event of the separation or rupture of a hose or piping may be used to meet the emergency discharge control system performance requirement specified in § 178.337-11(a)(1)(i).

Unloading With a Liquid Pump System

While it seems that the HMR's longstanding requirements should be well understood and fully complied with by the affected industries, unfortunately that is not the case. Instead, efforts undertaken by the affected industries to achieve increased efficiency in the unloading of hazardous materials by the installation of pumps on specification MC 330 and MC 331 cargo tank motor vehicles prevent emergency discharge control systems from operating properly under all temperatures and pressures routinely encountered during normal conditions of transportation. The installation of pumps on specification MC 330 and MC 331 cargo tank motor vehicles has been accompanied by the industry's installation of internal self-closing stop valves with an emergency feature designed to function at a flow rating well above the discharge capacity of the pump. This assures transfer of product without interruption by inadvertent functioning of the emergency discharge control system. As presently found in most product discharge system configurations, a pump functions as a regulator in the product discharge line so as to eliminate any possibility that the emergency discharge control system will function in event of a line separation. Also, it has been pointed out by Mississippi Tank Company that even on cargo tank discharge systems not fitted with pumps, the emergency discharge control system on most LPG vehicles would fail to properly operate under all temperatures and pressures routinely encountered during normal conditions of transportation. The National Propane Gas Association (NPGA) in 1978 and 1990, issued bulletins NPGA #113-78 and NPGA #113-90, which state:

Excess flow check valves have been of help in limiting gas loss in *many incidents* involving breakage of hoses and transfer piping. Thus, *they do provide a useful safety function in LP-gas systems*. However, *there have also been transfer system accidents* where excess flow valves have been

ineffective in controlling gas loss due to a variety of conditions and to the inherent limitations of these valves * * * *An excess flow valve is not designed to close and thus may not provide protection, if any of the following conditions are present: (1) The piping system restrictions (due to pipe length, branches, reduction in pipe size, or number of other valves) decrease the flow rate to less than the valve's closing flow* * * * (Emphasis added).

This information demonstrates that the industry has been aware, since at least 1978, that excess flow valves are not designed to function where piping system restrictions (e.g., pumps) decrease the flow rate to less than the excess flow valve's closing flow. Also, the industry has information regarding "many" incidents involving hose and transfer separation and other transfer system accidents, but this information has not been shared with RSPA despite numerous requests.

Pressure Unloading

Unloading systems that employ pressure rather than a pump to unload, such as a gas compressor mounted on specification MC 330 and MC 331 cargo tank motor vehicles should not be affected by the problem identified with unloading of liquefied compressed gases by use of pumps, provided the operating pressure of the compressor, the flow rate of product through valves, piping and hose, and the setting of the emergency feature conform to requirements in § 178.337-11(a)(1)(v). Vehicles unloaded by pressure and conforming to the requirements of § 178.337-11(a)(1) are not subject to the temporary regulations specified in § 171.5.

C. History of Major Incidents

The hazards associated with the transportation of liquefied petroleum gas have been demonstrated repeatedly on U.S. highways. Based on information contained in the Hazardous Materials Information System, propane releases are a leading cause of death in hazardous material transportation. A summary of major incidents over the years is presented below. Most of these incidents were the result of collisions rather than due to unintended release of lading during transfer operations. However, each incident demonstrates the potential for grave consequences which result when liquefied petroleum gases are spilled and ignition occurs.

- On July 25, 1962, in Berlin, New York, an MC 330 bulk transport ruptured releasing about 6900 gallons of liquid propane. Ignition occurred. Ten persons were killed and 17 others were injured. Property damage included total destruction of 18 buildings and 11 vehicles.

- On February 9, 1972, in Tewksbury, Massachusetts, while an MC 330 bulk transport was unloading 8500 gallons of propane into two 60,000 gallon storage tanks at a Lowell Gas terminal, a second bulk transport backed into piping at the bulkhead of the unloading terminal causing a propane leak. Ignition occurred. In the ensuing fire, one of the transports exploded. Two persons were killed and 21 others were injured. Property damage included both transports, a large portion of the operating facility and surrounding woodland.

- On March 9, 1972, near Lynchburg, Virginia, an MC 331 bulk transport overturned and slid into a rock embankment. The impact ruptured the tank's shell, releasing about 4000 gallons of liquid propane. Ignition occurred. Two persons were killed and five others were injured. There was property damage to a farmhouse, outbuildings and about 12 acres of woodland.

- On April 29, 1975, near Eagle Pass, Texas, an MC 330 bulk transport struck a concrete headwall and ruptured releasing more than 8000 gallons of liquefied petroleum gas. The ensuing fire and explosion killed 16 persons, injured 51 others and destroyed 51 vehicles.

- On December 23, 1988, in Memphis, Tennessee, an MC 330 bulk transport struck a bridge abutment and ruptured releasing 9388 gallons of liquefied propane gas. The ensuing fire and explosion killed eight persons and injured eight others.

- On November 29, 1989, in Neptune Beach, Florida, while propane was being delivered to storage tanks at the Neptune Beach Elementary School, an unintentional release of propane ignited. In the resulting explosion and fire, the driver was badly burned and subsequently died.

- On July 27, 1994, in White Plains, New York, an MC 331 bulk transport struck a column of an overpass and ruptured, releasing 9200 gallons of propane. Ignition occurred. The driver was killed, 23 persons were injured and an area within a radius of 400 feet was engulfed in fire.

- On September 8, 1996, in Sanford, North Carolina, during delivery of propane to a bulk storage facility by an MC 331 bulk transport, more than 35,000 gallons of propane were released. The discharge hose separated from its hose coupling at the delivery end of the hose. Most of the transport's 9800 gallons of propane and more than 30,000 gallons from the storage tanks were released. If this quantity of released propane ignited, local

authorities estimated that about 125 emergency response personnel could have been injured or killed.

- On June 3, 1997, in Caro, Michigan, while unloading propane into a storage tank at an industrial facility, the delivery hose of an MC 331 transport ruptured. The ensuing fire and a series of explosions seriously burned the driver, destroyed four vehicles and extensively damaged the facility. Initial estimates of property damage are at least \$2.0 million.

Two additional examples of serious accidents involving shipments of liquid petroleum gas are noteworthy. In what many consider the world's most serious incident involving a motor vehicle transporting liquid petroleum gas, on July 11, 1978, an overfilled cargo tank passing near a campground in Spain exploded and burned. About 200 persons were killed and 120 were badly burned. And, although no motor vehicles were involved, another major accident occurred on February 22, 1973, in Waverly, Tennessee, when a 30,000 gallon railroad tank car exploded and burned. Sixteen persons were killed, 43 others were injured and \$1.8 million of property damage resulted.

The history of major accidents in the transportation of anhydrous ammonia is similar to that involving the transportation of liquefied petroleum gases. Pulmonary injuries are more significant with ammonia while fire damage is more significant with liquefied petroleum gases. An example of a major accident involving the release of ammonia is an incident that occurred May 11, 1976, in Houston, Texas. The driver of an MC 331 transport lost control while negotiating an interstate exit ramp. The cargo tank motor vehicle overturned and fell from the overpass onto a major artery some 15 feet below. The cargo tank ruptured, releasing its entire cargo of 7500 gallons of anhydrous ammonia. The driver was killed in the crash. An additional five persons were killed and 78 others were hospitalized, all due to inhalation of ammonia. Another 100 persons were treated for less severe injuries. Favorable wind conditions prevented the vapor cloud from reaching a nearby elementary school.

D. RSPA Safety Advisory Notice and Federal Highway Administration (FHWA) Safety Alert Bulletin

Based on preliminary information from the Sanford incident, RSPA published an advisory notice in the **Federal Register** on December 13, 1996 (61 FR 65480). That notice alerted persons involved in the design, manufacture, assembly, maintenance or

transportation of hazardous materials in MC 330 and MC 331 cargo tank motor vehicles of the problem with emergency discharge control systems and reminded them that these tanks and their components must conform to the HMR. At the same time, FHWA issued and distributed 16,000 copies of a Safety Alert Bulletin on this issue.

E. Emergency Exemption Applications

On December 2, 1996, and December 18, 1996, RSPA received applications for emergency exemptions from the Mississippi Tank Company and the NPGA, respectively, indicating the problem with cargo tank motor vehicle emergency discharge systems was more extensive than originally believed. Additionally, The Fertilizer Institute (TFI) and National Tank Truck Carriers, Inc. (NTTC) submitted applications to become party to these exemptions. In support of its exemption application, the Mississippi Tank Company, a manufacturer of specification MC 331 cargo tank motor vehicles, provided preliminary information that there is reason to suspect the problem is common to nearly all cargo tank motor vehicles used in liquefied compressed gas service within the U.S. This problem is also thought to exist in the non-specification cargo tanks authorized in § 173.315(k).

In their requests for emergency exemption, the applicants asked the agency to issue an exemption to allow the continued use of existing cargo tank motor vehicles and the conditional operation of newly constructed cargo tank motor vehicles while a long-term solution to the problem is developed. NPGA suggested that long-term solutions might include pneumatic or mechanical "deadman" devices, possibly combined with a lanyard for remote activation, or the use of a differential pressure valve.

NPGA proposed that the emergency exemption require: (1) Compliance with applicable provisions of the HMR other than §§ 173.315(n), 178.337-11(a)(1)(i) and 178.337-11(a)(1)(v); (2) an outreach effort by NPGA to notify members of the Sanford, North Carolina incident and related, identified concerns; (3) transfer hose inspection before continued use and new hose inspection as required under the HMR; (4) compliance with applicable provisions of the National Fire Protection Association (NFPA) pamphlet NFPA 58, Storage and Handling of Liquefied Petroleum Gases, 1995 edition; (5) continual driver attendance and control of the loading/unloading operations; and (6) driver training. Mississippi Tank Company proposed that the emergency exemption

require a warning statement and/or special operating instructions.

Both applicants stressed the urgent need for an expedited response from RSPA. Mississippi Tank indicated that an emergency exemption was needed "to allow the continued use of existing equipment and to allow badly needed new equipment to continue to be made available to the industry." In the section of its application entitled "Treatment as an Emergency Exemption," NPGA indicated that the propane industry was in the midst of the winter heating season, that over 80 percent of the 7-9 billion gallons of propane delivered annually was to be used as a residential heating fuel, and that all of the existing cargo tanks were needed to deliver the heating fuel for residential and agricultural purposes. In further support of its argument that an emergency existed, NPGA also stated that "the ability to be able to operate propane bobtails and highway transports has so many impacts and is so pervasive as to be almost incalculable from an economic impact viewpoint." NPGA concluded its application by stating that "a true emergency exists for handling this Exemption request in an expedited manner * * *"

After evaluating the facts before it, and the NPGA's and Mississippi Tank Company's emergency exemption applications, RSPA agreed that an emergency existed. However, the agency denied the applications for emergency exemption on January 13, 1997, because they failed to provide for an equivalent level of safety as required by § 5117 of the Federal hazardous materials transportation law, 49 U.S.C. § 5117, and 49 CFR 107.113(f)(2). Also, RSPA found that the issues addressed in the applications have serious safety and economic implications for a broad range of persons, including a significant number of regulated entities facing a possible interruption in transportation services because of widespread non-conformance with the HMR's requirement for a passive emergency discharge control system. Consequently, RSPA believed that the issues raised by the applicants were better addressed through the rulemaking process. See 49 CFR 107.113(i). Thus, RSPA published the IFR because of the emergency situation described by NPGA and Mississippi Tank Company in their applications for emergency exemption, and the applicants' requests for expedited relief.

F. The Interim Final Rule

The IFR was issued to enhance safety of product transfer operations while allowing for the continued

transportation of liquefied compressed gases (principally propane, other liquefied petroleum gases and anhydrous ammonia). The IFR was made effective for a six-month period, until August 15, 1997, to allow industry time to develop at least an interim solution to the problem with emergency discharge control systems. RSPA and the FHWA believed that, without the authorization for continued operation provided by the IFR, persons who depend on propane and other liquefied compressed gases for residential, industrial, and agricultural purposes, as well as cargo tank motor vehicle operators and manufacturers, would be severely impacted by service interruptions in these industries. Because there are no acceptable alternatives for distributing these materials to most residences and facilities served by cargo tank motor vehicles, RSPA and FHWA believed the IFR was necessary to avoid other potentially serious safety and economic consequences that might have resulted from an inability to secure these essential materials.

In order to enhance the level of safety during transfer operations using current equipment, the IFR specified special conditions for continued operations in new § 171.5. These conditions offered an alternate means of compliance with existing emergency discharge controls required by § 178.337-11. Those conditions included:

Paragraph (a)(1). Use provisions under which MC 330, MC 331, and non-specification cargo tank motor vehicles authorized under § 173.315(k) may be operated and unloaded.

Paragraph (a)(1)(i). A requirement to verify the integrity of components making up the cargo tank motor vehicle's discharge system before initiating any transfer.

Paragraph (a)(1)(ii). A requirement that prior to using a new or repaired transfer hose or a modified hose assembly, the hose must be pressure tested at no less than 80 percent of the design pressure or maximum allowable working pressure (MAWP) marked on the cargo tank.

Paragraph (a)(1)(iii). A requirement that a qualified person in attendance of the cargo tank motor vehicle during the unloading operation must have the capability to manually activate the emergency discharge control system to stop the release of the hazardous material from the cargo tank.

Paragraph (a)(1)(iv). A requirement that in event of an unintentional release of lading, the internal self-closing stop valve be activated and all motive and

auxiliary power equipment be shut down.

Paragraph (a)(1)(v). A requirement for the development, and maintenance on the cargo tank motor vehicle, of comprehensive emergency operating procedures for all transfer operations.

Paragraph (a)(1)(vi). A requirement that each manufacturer, assembler, retester, motor carrier and other hazmat employer provide training to its hazmat employees so that they may properly perform the new function-specific requirements in § 171.5.

Paragraph (a)(2). Conditions for continued qualification of existing in-service cargo tank motor vehicles.

Paragraph (a)(3). Requirements for new vehicles, including a special entry on the Certificate of Compliance required by § 178.337-18.

Paragraph (b). A requirement for a specific marking to be displayed on each cargo tank motor vehicle operating under § 171.5.

Paragraph (c). An August 15, 1997 expiration date for this temporary regulation.

The IFR, and a subsequent notice in the **Federal Register**, advised of two public meetings and two public workshops scheduled to gather information and allow comment on the IFR requirements. In the IFR, RSPA also solicited comments and data on the costs and effectiveness of alternate means of achieving a level of safety for the long-term comparable to that provided by current requirements. Finally, RSPA solicited comments on the costs and benefits of the interim measures adopted under the IFR.

As the investigation of the Sanford incident proceeded, it became apparent that certain assumptions made both by RSPA and FHWA and by parts of the industry were invalid regarding the emergency discharge control systems. These systems were previously thought to conform to requirements of § 178.337-11(a)(1)(i) established under Docket HM-183 [54 FR 24982; June 12, 1989]. Both the NPGA and TFI quickly set up special task forces to deal with the shortcomings of existing product delivery systems.

Since mid-December 1996, and while maintaining close liaison with RSPA and FHWA, much has been accomplished by industry. For example, off-the-shelf radio remote control and telemetry equipment has been identified which, with relatively simple modifications, may be used to stop the delivery of product from a distance while meeting requirements for "unobstructed view" in § 177.834(i)(3) of the HMR. This equipment has been in use for many years in various

industrial applications. Similarly, several manufacturers have developed other promising radio remote control systems aimed at this problem; some of these have been demonstrated and are currently being marketed by equipment suppliers serving the propane industry.

Additionally, some manufacturers have demonstrated systems capable of automatically closing discharge valves in the event of separation of hoses or piping. The range of conditions under which these systems can be counted on to offer reliable operation for liquefied compressed gases has not been determined as yet, and additional field testing is called for, but the accomplishments to date are encouraging.

During the two public meetings and two public workshops, RSPA and industry explored possible long- and short-term solutions to enhance the safety of product transfer operations. RSPA also worked with the Volpe National Transportation Systems Center to identify off-the-shelf technology that might offer possible solutions, and TFI engaged the Pennsylvania Transportation Institute to conduct related research. Also, RSPA and FHWA staff participated in several industry-sponsored meetings and witnessed the demonstration of new technologies being developed to enhance safety during the unloading of hazardous materials from MC 330 and MC 331 cargo tank motor vehicles. As a result of these joint efforts, industry developed and tested at least two passive systems and several remote control systems using radio signals, all of which show great promise. Several operators have installed these devices on a limited number of cargo tank motor vehicles in order to test them in actual operation.

G. Petitions for Reconsideration

On March 21, 1997, RSPA received a petition for reconsideration of the IFR from the NPGA, on behalf of its members, and a petition for reconsideration jointly filed by Ferrellgas, L.P., Suburban Propane, L.P., AmeriGas Propane, L.P., Agway Petroleum Corporation and Cornerstone Propane Partners, L.P. (Those petitions are attached, in their entirety, as Appendices A and B, respectively.) Petitioners specifically requested that RSPA reconsider the additional attendance requirement in § 171.5(a)(1)(iii), which they contend effectively mandates that two or more attendants travel to and be present during the unloading of propane gas from a cargo tank motor vehicle. They assert that the high cost of compliance with the additional requirement is not

supported by the safety record for propane gas delivery, and they provided some cost and safety data to support their views.

A significant number of commenters to the IFR raised issues regarding cost and safety identical to those raised by petitioners. Numerous commenters cited compliance cost estimates that they considered excessive, based on their assertion that they have long operated cargo tank motor vehicles without experiencing problems with the currently installed emergency discharge control systems. These same issues were among the topics raised by participants in the two public meetings and the two public workshops conducted by RSPA.

In its petition, NPGA also asked for an immediate stay of the additional attendance requirement pending a decision on its petition. Ignoring statements made in its emergency exemption application, NPGA's request for a stay was based on its assertion that an emergency did not exist and, therefore, that RSPA was not justified in foregoing notice and comment before immediately imposing new requirements. NPGA further argued that because RSPA should have issued a notice of proposed rulemaking (NPRM) prior to imposing new requirements, the agency should have done a full economic analysis of the effect of the new requirements on small businesses, as required under the Regulatory Flexibility Act, 5 U.S.C. 601-612.

In order not to prejudge the additional attendance requirement issue before all interested parties had an opportunity to comment on the IFR requirements, RSPA did not respond to the petitions for reconsideration prior to the close of the IFR comment period. Also, because of the fast-approaching expiration date of the IFR, the need to take further regulatory action to ensure an acceptable level of safety during the transportation, including unloading, of liquefied compressed gases, and the identical nature of the issues raised by petitioners and commenters alike, RSPA found that it was impractical to make a decision on the petitions for reconsideration prior to issuance of this final rule. On June 9, 1997, RSPA published a notice in the **Federal Register** (62 FR 31363) announcing its intent to defer a decision on the petitions for reconsideration of the IFR and to hold a second public meeting at industry's request. RSPA indicated that it would address the issues raised by petitioners and commenters regarding the IFR requirements in a final rule that it intended to issue prior to the expiration date of the IFR. RSPA also indicated in that notice that after

publication of the final rule, it intended to issue an NPRM to address broader issues raised during the course of this rulemaking, including the "unobstructed view" requirement in § 177.834(i) and the need for hose management program requirements.

A significant basis for RSPA's finding that an emergency exists is NPGA's and Mississippi Tank Company's assertions of the urgent need for propane as a fuel for heating homes and agricultural facilities, as well as the potentially serious adverse financial impacts on propane marketers, propane producers, common carriers, vehicle assemblers and equipment manufacturers. As RSPA noted in the IFR, "After evaluating the situation and the NPGA and Mississippi Tank Company emergency exemption applications, RSPA finds that this situation constitutes an emergency with broad applicability to many persons and far reaching safety and economic impacts." (62 FR at 7644). Indeed, NPGA stated that the operation of the affected cargo tank motor vehicles has impacts "almost incalculable from an economic standpoint," and that an interruption of service by the industry would pose safety risks to the large number of people in rural areas who depend on propane as fuel for heating and cooking. The finding by RSPA that an economic and safety emergency exists led the agency to issue the IFR in order to provide industry with an immediate means of compliance with the HMR, thereby avoiding an interruption of service and the resulting economic and safety impacts described by the petitioners.

Because RSPA did not issue an NPRM in this rulemaking, it was not required under the Regulatory Flexibility Act, 5 U.S.C. 601-612, to do a full regulatory flexibility analysis regarding the impact of the IFR on small entities.

As RSPA stated in the IFR:

The Regulatory Flexibility Act (Act), as amended, 5 U.S.C. 601-612, directs agencies to consider the potential impact of regulations on small business and other small entities. The Act, however, applies only to rules for which an agency is required to publish a notice of proposed rulemaking pursuant to § 553 of the Administrative Procedure Act (APA), 5 U.S.C. 553. See 5 U.S.C. 603(a) and 604(a). Because of the emergency nature of this rule, RSPA is authorized under § 553(b)(B) and § 553 (d)(3) of the APA to forego notice and comment and to issue this rule as an interim final rule with an immediate effective date. Consequently, RSPA is not required under the Act to do a regulatory flexibility analysis in this rulemaking.

Specifically, § 553(b)(B) and § 553(d)(3) of the APA authorize agencies to dispense with certain procedures for rules, including notice

and comment, when they find "good cause" to do so. "Good cause" includes a finding that following notice-and-comment procedures would be "impracticable, unnecessary, or contrary to the public interest." Section 553(d)(3) allows an agency, upon a finding of good cause, to make a rule effective immediately. "Good cause" has been held to include situations where immediate action is necessary to reduce or avoid health hazards or other imminent harm to persons or property, or where inaction would lead to serious dislocation in government programs or the marketplace.

Nevertheless, RSPA is concerned with the effect this rule may have on small business. Consequently, in preparing a preliminary regulatory evaluation under Executive Order 12866, RSPA has analyzed, based on information currently available to the agency, the impact of this rule on all affected parties, including small businesses. The preliminary regulatory evaluation is available for review in the public docket (62 FR 7646).

In the IFR, RSPA also asked a series of questions intended to elicit economic, safety and technical data for use in the preparation of a final regulatory evaluation. A discussion of the economic impacts of this rule appears below and in the final regulatory evaluation that is available in the public docket.

II. Issues and Comments

RSPA received over 90 comments on the provisions specified in the IFR. These comments were from Members of Congress, trade associations, marketers, carriers, and State and local agencies. All comments, including late submissions and comments made at the meetings and workshops, were considered by RSPA to the extent practicable. Most commenters stated that they could comply with the provisions of the IFR, except for those provisions requiring the person attending the unloading to have an unobstructed view of the discharge system, and be within arm's reach of a means for closure of the internal self-closing stop valve or other device that will immediately stop the discharge of product from the cargo tank. (See § 171.5(a)(1)(iii)). While the affected industries expressed their interest in working with RSPA to develop systems and procedures that assure safe unloading of hazardous materials from the MC 330 and MC 331 cargo tank motor vehicles in every circumstance, the propane industry adamantly opposes these particular elements of the IFR which it characterizes as being neither practicable, reasonable, nor in the public interest. Specifically, the NPGA estimated annual costs of \$660 million to its member companies in order to comply with the attendance requirement in the IFR. This cost

estimate is attributed largely to the NPGA's understanding that a literal interpretation of the rule effectively requires at least two, and possibly three, operators for each unloading operation. NPGA explained that, in addition to the current operator who attends to the delivery of propane at the receiving tank, a second operator would be required to be under the truck to observe the piping and a third operator would be required at the remote control on the internal valve in order to have all the discharge system in view during the transfer operation. If a third operator were actually required, as hypothesized, the NPGA contends the cost of compliance would double to \$1.32 billion.

The \$660 million estimate of annual costs calculated by NPGA results from a misreading of the rule. In the preamble to the IFR, RSPA set forth several options for complying with "the unobstructed view" and "arm's reach" requirements. In that discussion, RSPA stated "(u)ntil an automatic flow control system is developed, this may require two operator attendants on a cargo tank motor vehicle or the use of a lanyard, electro-mechanical, or other device or system to remotely stop the flow of product." (62 FR at 7643).

The cost of various alternatives was analyzed by RSPA in the preliminary regulatory evaluation prepared in support of the IFR. Where two operators would be required, RSPA estimated additional annual costs in the amount of \$237 million. RSPA recognized the cost estimate as being so great as to effectively eliminate the two-person method of compliance from consideration as a feasible alternative. RSPA subsequently assessed the NPGA's suggested use of a lanyard and that resulted in the significantly lower estimate of costs of compliance of \$12.5 million. Therefore, the lanyard system and equally efficient means of achieving compliance with the IFR were determined by RSPA to be among the common-sense approaches that could be taken by industry to permit its continued operation of the non-conforming cargo tank motor vehicles.

The NPGA then contrasted its extremely high estimate of costs to comply with the arm's reach and unobstructed view provisions of the IFR with the comparatively low estimate of \$322,192 to \$1.5 million in annual benefits to society calculated by RSPA in the preliminary regulatory evaluation. RSPA calculated those benefits on the basis of sixteen actual incidents contained in the Hazardous Materials Information Reporting System database that occurred between 1990-

1996. The approach taken by RSPA was an attempt to determine the average cost of each gallon of propane unintentionally released to the environment so it might be used to compare the estimated cost-per-gallon price increase attributed to the IFR that likely would be passed on to the ultimate consumer of propane. The costs to society of each gallon of propane spilled was estimated in a range of \$115.98 to \$547.41, or \$0.00164 per gallon of propane unloaded from cargo tank motor vehicles. When RSPA compared these costs to the calculated additional costs of compliance, the decision to apply temporary operational controls contained in the IFR was fully justified and quite reasonable. When RSPA considered further the potential threats to life and property posed by plausible accident scenarios, such as the possible consequences that may have occurred in Sanford, NC, had the spilled propane ignited, the reasonableness of the temporary rules became even more apparent.

Numerous comments submitted by small propane dealers serving agricultural interests in the midwestern United States cited an estimate of approximately \$2,500 per vehicle to replace non-performing (defective) emergency discharge control systems with a fully operational passive shut-off system. They claimed this cost is excessive and unnecessary, especially considering that none of those commenters had ever experienced a failure of the emergency discharge control system to function properly. Related comments suggested that these small businesses accepted in good faith claims made by equipment manufacturers that their cargo tank motor vehicles met all technical requirements of the HMR. Furthermore, those commenters claimed they should not be penalized for equipment deficiencies that they could not reasonably be expected to identify through an independent evaluation. Some conclude by suggesting that RSPA should require persons that completed the certificate of compliance for each cargo tank motor vehicle to bear the cost of a retrofit, following the example of the National Highway Traffic Safety Administration in ordering automobile manufacturers to correct identified safety defects.

RSPA does not agree with the commenters' reasoning that, because it was only recently determined that most of the affected cargo tank motor vehicles do not conform to a long-standing safety requirement, the agency should accept the *status quo* as the officially recognized standard for safety. As

indicated earlier in this preamble, the need for and value of fully operational emergency discharge controls is undisputed. Actual threats to life and property posed during the unloading of liquefied compressed gases demand that RSPA require compliance with a performance standard that appears to be reasonably achievable through technological innovations that are now undergoing field tests.

A. Barriers to Compliance

A number of motor carriers noted practical barriers to their full compliance with requirements in the interim final rule. One problem concerns the regulatory requirement that the operator be within arm's reach of a means for closure of the internal self-closing stop valve while operational necessity sometimes calls for the operator to enter the vehicle's cab in order to engage the power take-off for the pump. For large capacity trailers, (e.g., those with a nominal capacity of 10,500 gallons), those controls are normally accessible only from the vehicle operator's position in the truck tractor. A few operators reported that while most bobtail trucks have the controls mounted on the rear deck of the vehicle, unloading controls for some bobtail trucks also are located in the vehicle cab. Thus, these operators claimed the need for two operators.

With respect to retail deliveries of propane to residential and industrial customers, numerous commenters noted that the operator is most frequently located at the delivery end of the hose which may be 100 feet, or farther, from the vehicle. Additionally, these commenters noted that it is not unusual for the receiving tank to be located in a position that prohibits the operator from having an unobstructed view of the cargo tank motor vehicle, as required by § 177.834(i)(3). The commenters state that, in their opinion, because § 177.834(i)(5) specifies that the delivery hose when attached to the cargo tank is considered part of the vehicle, the operator in these circumstances is in compliance with § 177.834(i)(3). Also, where the receiving tank and the cargo tank motor vehicle are in positions which do not allow for a direct line of sight, these carriers believe that compliance is possible by having the operator assume a position within 25 feet of the hose at the corner of the house, or other structure, from which point both cargo tank and receiving tank may be observed. The impediment to compliance in these cases is that, for relatively short periods when the operator is connecting/disconnecting the hose to the receiving tank, it is

impossible to observe the cargo tank. To avoid the high costs of compliance associated with hiring and training a second operator to assist in these frequently occurring situations, the commenters petitioned for relief from the requirements of § 171.5(a)(1)(iii) by requesting the following amendment:

In addition to the attendance requirements in § 177.834(i) of this subchapter, the person who attends the unloading of a cargo tank vehicle must, except as necessary to facilitate the unloading of product or to enable that person to monitor the receiving tank, remain within arm's reach of a remote means of automatic closure (emergency shut-down device) of the internal self-closing stop valve.

See Ferrellgas *et al.* Petition for Reconsideration of Interim Final Rule (Appendix B).

RSPA rejects the industry's interpretation of the long-standing operator attendance rules in § 177.834(i)(3) that a single operator satisfies requirements for an unobstructed view of the cargo tank, and is within 25 feet of the cargo tank, merely by being in proximity to, and having an unobstructed view of, any part of the delivery hose, which may be 100 feet or more away from the cargo tank motor vehicle, during the unloading (transfer) operation. The rule clearly requires an operator be in a position from which the earliest signs of problems that may occur during the unloading operation are readily detectable, thereby permitting an operator to promptly take corrective measures, including moving the cargo tank, actuating the remote means of automatic closure of the internal self-closing stop valve, or other action, as appropriate. RSPA contends the rule requires that an operator always be within 25 feet of the cargo tank. Simply being within 25 feet of any one of the cargo tank motor vehicle's appurtenances or auxiliary equipment does not constitute compliance.

B. Transports

Compliance with the long-standing attendance requirements is rather easily achieved by a single operator in most instances involving the unloading of "transports" at bulk plants, similarly configured industrial facilities, neighborhood gasoline service stations, and other delivery sites which generally provide for use of transfer hoses that do not exceed 20 feet in length. It is the provision in the IFR, requiring the operator to be within arm's reach of a means for closure of the internal self-closing stop valve or other device that will immediately stop the discharge of product from the cargo tank at all times,

that makes compliance by a single operator difficult or impossible.

In order to assure that temporary operational safety controls specified in § 171.5 may be reasonably complied with by the operating motor carriers, RSPA is revising the rule by providing that the person in attendance of the cargo tank may be away from the mechanical means for closure of the internal self-closing stop valve for the short period necessary to engage or disengage the motor vehicle power take-off or other mechanical, electrical, or hydraulic means used to energize the pump and other components of the discharge system. RSPA believes this provision allows for a single operator to perform necessary unloading functions, while also reducing potential threats to safety by requiring the operator to quickly assume a position within arm's reach of the emergency discharge control mechanism. With this revision, RSPA is satisfied that compliance with the temporary rule may be accomplished by one operator and without requiring the additional use of a lanyard, electro-mechanical, or other device or system to remotely stop the flow of product. Thus, under this final rule, operators of transports may avoid the costs associated with equipping the cargo tanks with devices or systems that provide an alternative means of compliance with the HMR. This provision is responsive to concerns raised by petitioners representing the propane industry. See Appendices A and B.

C. Bobtails (Local Delivery Trucks)

Issues raised by commenters concerning general applicability of requirements in § 177.834(i) pertaining to operator attendance during the unloading of cargo tank motor vehicles relate to a larger number of motor carriers and specification cargo tanks than those addressed in this final rule. Therefore, the attendance issue is addressed only to the extent it bears on temporary operational controls set-out in this rule. In an ANPRM published in today's **Federal Register** RSPA addresses those broader issues with respect to liquefied compressed gases transported in specification MC 330, MC 331 and certain non-specification cargo tank motor vehicles. That rulemaking proposal specifically solicits participation by emergency responders and other affected persons whose concerns were not made known during the course of this rulemaking action.

RSPA is revising the IFR attendance requirements to address economic concerns raised by petitioners on behalf of operators of bobtail trucks.

Peculiarities in the siting of receiving tanks, accessibility of a cargo tank motor vehicle to the vicinity of the receiving tank, permanent structures, including high fences, walls, and the like, create scenarios that need to be addressed separately.

When a bobtail truck is used solely to service receiving tanks that are located within 25 feet of the cargo tank and the operator has a direct line of sight, RSPA is confident that compliance with the temporary rule may be accomplished by one operator and without incurring additional costs for the application of a lanyard, electro-mechanical, or other device or system to remotely stop the flow of product.

Another scenario common to bobtail operations involves the delivery of propane to a receiving tank which provides for an unobstructed view of the cargo tank, but is at a distance greater than 25 feet from the cargo tank. In this situation, a single operator conceivably could comply with the temporary operational controls in the same manner as discussed above for transports. However, the need to closely observe the receiving tank takes the operator more than 25 feet from the cargo tank motor vehicle and effectively mandates installation of a remote control system or other system that allows the operator to promptly activate the emergency discharge controls. Installation of a remote control system allows the motor carrier to avoid high labor costs identified by the industry that would otherwise be incurred when a second operator is employed to achieve compliance with these temporary regulations. Data provided by the industry concerning radio-controlled systems that are capable of stopping the engine and, in turn, shutting-down the operation of the pump, thereby allowing the internal self-closing stop valve to revert to its fail-safe position, indicate that most bobtail cargo tanks could be so equipped at a unit cost of approximately \$250 to \$500.

Still another frequently reported unloading scenario involves situations where the receiving tank is more than 25 feet from the cargo tank motor vehicle and the operator's view is obstructed by a structure, a natural formation, foliage, or some other barrier. RSPA understands further that many residential deliveries of propane fall into this unloading scenario. This situation is of greatest concern to RSPA because the possibility exists that a failure of a discharge valve, pump seal, hose reel swivel joint, or hose during unloading (transfer) may not be immediately detected. Should that occur, a dangerous quantity of propane

could be released to the environment, possibly ignite, and result in serious injuries, extensive property damage, or both.

In the unloading scenario described above, when a single operator attends to the unloading operation, that person is required by this final rule to take additional safety precautions. Before commencing the transfer of product, (*i.e.*, opening the internal valve), the operator must assume a position near the cargo tank motor vehicle that is within arm's reach of the emergency discharge controls. Alternatively, if the operator has a remote control system, or other device, that has a capability to immediately close the internal valve, the operator must assume a position that assures an unobstructed view of the cargo tank. In either event, a transfer of product may be affected only at such times as the operator has an unobstructed view of the cargo tank.

RSPA believes this final rule clearly provides motor carriers with the ability for a single operator to safely unload liquefied compressed gases transported in specification MC 330 and MC 331 cargo tank motor vehicles in most circumstances and at a minimal cost for installation, maintenance, and training in the use of remote control systems, or other devices, that permit the operator to promptly stop the flow of product in the event of an unintentional release to the environment. The temporary rules permit motor carriers to continue until March 1, 1999, their use of cargo tank motor vehicles that do not conform to § 178.337-11 for the transportation of hazardous materials that are essential to home, agriculture, and industry.

Prior to March 1, 1999, RSPA anticipates the industry will have perfected passive shut-off systems that allow motor carriers to bring their cargo tank motor vehicles into compliance with requirements of § 178.337-11.

D. Need for Passive System Requirements

Several commenters question whether the emergency discharge requirement in § 178.337-11 is necessary. ICI Technology and Barrett Transportation Compliance state that RSPA is placing too much emphasis on a passive automatic shut-down device. They believe that knowing the cause of accidents and focusing on prevention is better than trying to mitigate the incident once it occurs.

TFI believes that a hose management program, along with industry awareness training programs, possible requirements for brake interlock systems, and improvements to the delivery system of cargo tanks in

ammonia service, including the emergency-shut-off valve, are sufficient to provide an equivalent level of safety to a fully passive excess flow valve, and may be one possible long-term solution to the problem at hand. NPGA supports TFI's position and believes that enhanced hose testing, training and inspection procedures would provide an equivalent level of safety inasmuch as the majority of product discharges are the result of hose ruptures rather than complete separations which excess flow valves are intended to address.

The HMR address two unintentional release scenarios, specifically: (1) Total hose or piping rupture or separation; and (2) partial hose or piping rupture, separation, or leak. Commenters correctly note that the passive emergency discharge control requirement in § 178.337-11(a)(1)(i) is meant to protect against the unintentional discharge of liquefied compressed gases where there is a total hose or piping rupture or separation. Such events have potentially large consequences and high probability of incapacitating the operator to the extent that person cannot perform emergency procedures. For partial hose or piping rupture, separation, or leak, operator-dependent countermeasures are the primary safety measure. The operator-attendance requirements for unloading operations in § 177.834(i)(2) ensure that the person attending an unloading operation is alert, can see the cargo tank during the unloading operation and is close enough to the cargo tank to reach the emergency shut-off system in the event of an emergency. The training requirements in § 172.700 are intended to ensure that the person attending the unloading operation is aware of safety procedures and is familiar with the HMR in general and the requirements that apply specifically to the functions the employee performs. Where a partial hose or piping rupture, separation, or leak occurs, only the operator-dependent countermeasures come into play.

With issuance of this final rule and the ANPRM, RSPA is reviewing and addressing existing HMR requirements, including the passive system requirement in § 178.337-11. RSPA also is considering the need for a hose management program and other measures that address the problem of hose ruptures. RSPA will review these requirements from a cost/benefit perspective, especially in light of new technologies that are available now or will shortly be available.

E. Decisions on Petitions for Reconsideration

Based on the above information and discussions, NPGA's March 21, 1997 petition for reconsideration of the "arm's reach" requirement contained in the February 19, 1997 IFR is denied. Based on the same information and discussions, the March 21, 1997 petition for reconsideration of the IFR filed by Ferrellgas, *et al* (joint petitioners) is granted in part and denied in part. Specifically, as requested by the joint petitioners, this final rule authorizes the person attending the unloading of a cargo tank motor vehicle to step away from the mechanical means of closure of the internal self-closing stop valve for the short duration necessary to engage or disengage the motor vehicle power take-off or other mechanical, electrical, or hydraulic means used to energize the pump and other components of the discharge system on the cargo tank. It does not, however, authorize that person to step away from the means of immediate closure of the internal self-closing stop valve for any other reason.

III. Provisions of the Final Rule

A. Section 171.5

Paragraph 171.5(a)(1) sets forth use provisions under which MC 330, MC 331 and non-specification cargo tank motor vehicles authorized under § 173.315(k) may be operated and unloaded. Also, this paragraph makes clear that § 171.5 does not apply to cargo tank motor vehicles used to transport carbon dioxide.

Paragraph 171.5(a)(1)(i) requires that, before each transfer of product is initiated from a cargo tank motor vehicle, the person performing the unloading function should verify that each component of the discharge system is of sound quality, is free of leaks, and that all connections are secure. Also, the transfer hose must be subjected to full transfer pressure prior to the first unloading of product each day.

Paragraph 171.5(a)(1)(ii) requires that, before the transfer of product is initiated from a cargo tank motor vehicle using a new or repaired transfer hose, or a modified hose assembly for the first time, the hose assembly must be subjected to a specified pressure test. This paragraph also provides that a hose or associated equipment that shows signs of leakage, significant bulging or other defects may not be used. Where hoses are used to transfer liquefied compressed gases, a procedure must be instituted to ensure that hose assemblies are maintained at a level of integrity suited to each hazardous material. An acceptable procedure for maintenance,

testing and inspection of hoses is outlined in publication RMA/IP-11-2, "Manual for Maintenance, Testing and Inspection of Hose", 1989 edition, published by the Rubber Manufacturers Association.

Paragraph 171.5(a)(1)(iii) requires that, in the event of an unintentional release of lading to the environment during transfer, the person attending the unloading operation must promptly activate the internal self-closing stop valve and shut down all motive and auxiliary power equipment. This paragraph clarifies that prompt activation can be accomplished in at least three ways, specifically: (1) Through compliance with the requirements in § 178.337-11(a)(1)(i); (2) through the use of a qualified person positioned within arm's reach of the mechanical means of closure throughout the unloading operation, except during the short period of time necessary to engage or disengage the motor vehicle power take-off or other mechanical, electrical, or hydraulic means used to energize the pump and other components of a cargo tank's discharge system; or (3) through the use of a fully operational radio-controlled system that is capable of stopping the transfer of lading by use of a transmitter carried by a qualified person unloading the cargo tank.

This paragraph also provides that where a radio-controlled system is used as a means of promptly activating the internal self-closing stop valve, the attendance requirements of § 177.834(i)(3) are satisfied when the qualified person unloading the cargo tank: (1) Carries a radio transmitter that will activate the closure of the internal self-closing stop valve; (2) remains within the operating range of the transmitter; and (3) has an unobstructed view of the cargo tank motor vehicle at all times when its internal stop-valve is open.

Paragraph 171.5(a)(1)(iv) states that cargo tank motor vehicles that meet the emergency discharge system requirements in § 178.337-11(a)(1)(i) may be operated under the provisions of § 171.5(a)(1).

Paragraph 171.5(a)(1)(v) requires that a comprehensive written emergency operating procedure be developed by persons conducting transfer operations, that the written procedures be prominently displayed on or in each affected cargo tank motor vehicle, and that hazmat employees who perform unloading functions be trained in those procedures.

Paragraph 171.5(a)(1)(vi) requires that cargo tank manufacturers, assemblers, retesters, motor carriers, and other

hazmat employers subject to § 171.5 train their employees to perform the new function-specific requirements in § 171.5 and maintain records of this training as required under § 172.704(d). As a general provision, this requirement already exists. Section 172.702 of the HMR requires that a hazmat employer ensure that each of its hazmat employees is trained in accordance with Subpart H of Part 172. The training requirements apply to persons who manufacture, maintain, and test cargo tanks, and to persons who operate cargo tanks. Testing, and a "certification that the hazmat employee has been trained and tested," is required by the regulation and Federal hazmat law. RSPA views emergency discharge controls and their operation to be essential to cargo tank safety and to be a significant element in the training program of any involved hazmat employer. Also, there are the driver training requirements in § 177.816 that include special requirements for operators of cargo tanks with a specific reference to training on the operation of emergency control features.

Paragraph 171.5(a)(2), regarding the continuing qualification of a cargo tank motor vehicle, allows existing in-service cargo tank motor vehicles that do not meet the requirements of § 178.337-11(a)(1)(i) to continue in operation if the Certificate of Compliance and inspection report required under § 180.417(b) contain the following statement: "Emergency excess flow control performance not established for this unit."

Paragraph 171.5(a)(3), regarding new cargo tank motor vehicles manufactured, marked and certified prior to March 1, 1999, states that those vehicles may be marked and certified as conforming to specification MC 331 if they meet all of the specification requirements, with the exception of the emergency excess flow control function, and the following statement appears on the certification document, "Emergency excess flow control performance not established for this unit."

Paragraph 171.5(b) specifies the marking that must be displayed on a cargo tank used or represented for use under § 171.5.

Paragraph 171.5(c) states that requirements specified in § 171.5 are applicable from August 16, 1997, through March 1, 1999.

B. Immediate Compliance

This final rule is an alternative to existing requirements. Industry may choose to comply with the requirements in § 178.337-11, tracing back to 1941, or with provisions in § 171.5. However,

because segments of industry are in non-compliance with requirements in § 178.337.11(a)(1)(v) and the attendance requirements in § 177.834(i)(3), a serious threat to the public safety continues to exist and must be addressed without delay. Furthermore, continued non-compliance with the above-stated requirements poses a serious economic threat to industry in that MC 330 and MC 331 cargo tank motor vehicles that do not conform to the HMR may not be used to transport hazardous materials. As stated by NPGA in its application for exemption, the impacts of continued operation of these vehicles are "so many" and "so pervasive as to be almost incalculable from an economic impact viewpoint." Based on the above, and the fact that the final rule requirements are refinements of the IFR requirements that have been in effect since February 19, 1997, good cause exists for making this rule immediately effective upon expiration of the IFR.

IV. Rulemaking Analyses and Notice

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is considered a significant regulatory action under section 3(f) of Executive Order 12866 and was reviewed by the Office of Management and Budget. The rule is considered significant under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034).

The preliminary regulatory evaluation prepared in support of the interim final rule published on February 19, 1997, was reexamined and modified to remove certain incidents that were not appropriate to issues considered in this rulemaking, and to consider economic cost data submitted to the docket by commenters. The final regulatory evaluation is available for review in the public docket.

Most of the compliance cost burden of this rule is expected to fall on propane dealers, and RSPA expects these costs to be passed on to customers. A total one-time expenditure of \$4.7 million to \$9.2 million is estimated as being required of these dealers. This expenditure is very small in relation to the revenue from sales of liquefied petroleum gas by dealers to final users, without even counting those sales that may be made directly to industrial, agricultural or commercial customers by merchant wholesalers or gas producers. The latest available (1992) *Census of Retail Trade* showed annual sales of liquefied petroleum gas by retail dealers alone to amount to \$4.87 billion. The \$4.7

million to \$9.2 million estimated above is relatively small when compared only to the margin between operating expenses and revenues net of the cost of such purchases and appears to add relatively little to a year's worth of outlays made by these dealers for capital equipment.

The U.S. Bureau of the Census has provided RSPA with 1992 sample-survey-based estimates of these quantities that are normally not published in such industry-specific detail since they have been subjected to only limited review. They were only available combined with those for fewer than 300 miscellaneous types of fuel dealers that could not be classified as "fuel oil" vendors, but this minor category accounted for only 1.3% of combined sales according to the 1992 *Census of Retail Trade*. 98.7% of the estimated operating margin and of the estimated annual capital expenditure (other than for land) amounted to \$499 million and \$191 million, respectively, for retail liquefied petroleum gas dealers.

Another way of putting these estimated compliance costs in perspective is to express their major component, the equipping of bobtails with radio frequency devices, as an average expenditure per retail liquefied petroleum gas business location. Using the 5393 such locations in existence during an entire year that were shown in the 1992 *Census of Retail Trade*, yields an average of under \$800 per location.

These essentially one-time-only costs of \$4.7 million to \$9.2 million (or annualized costs of \$3.13 million to \$6.14 million, when amortized over the 18 months this temporary regulation will be in effect) compare favorably with estimated annual benefits to society, in terms of reduced injuries, evacuations, and property damages, ranging from a low of \$322,071 to a high of \$3 million. The low end of this range is based upon data contained in fourteen unloading incidents reported to RSPA during the past seven years. The high end of the range considers those same incidents but then adjusts for a ten-fold estimate of under reporting of economic losses and a two-fold estimate of under reporting of the actual number of incidents, based upon the Office of Technology Assessment report "Transportation of Hazardous Materials" (July 1986). In event the requirements specified in this revised final rule were to prevent a major release of propane potentially threatening the life of four or more persons, the rule would yield a net benefit to society.

B. Executive Order 12612

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 12612 ("Federalism"). The Federal hazardous materials transportation law, 49 U.S.C. 5101-5127, contains an express preemption provision (49 U.S.C. 5125(b)) that preempts State, local, and Indian tribe requirements on certain covered subjects. Covered subjects are:

- (1) The designation, description, and classification of hazardous materials;
- (2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;
- (3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;
- (4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; or
- (5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This interim final rule addresses covered subject item (5) above and preempts State, local, and Indian tribe requirements not meeting the "substantively the same" standard. Federal hazardous materials transportation law provides at § 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. RSPA has determined that the effective date of Federal preemption for these requirements will be November 17, 1997. Thus, RSPA lacks discretion in this area, and preparation of a federalism assessment is not warranted.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (Act), as amended, 5 U.S.C. 601-612, directs agencies to consider the potential impact of regulations on small business and other small entities. The Act, however, applies only to rules for which an agency is required to publish a notice of proposed rulemaking pursuant to section 553 of the Administrative Procedure Act (APA), 5 U.S.C. 553. See 5 U.S.C. 603(a) and 604(a). Because of the emergency nature of this rule, RSPA

is authorized under sections 553(b)(B) and 553(d)(3) of the APA to forego notice and comment and to issue this final rule with an immediate effective date. Consequently, RSPA is not required under the Act to do a regulatory flexibility analysis in this rulemaking.

Specifically, under sections 553(b)(B) and 553(d)(3), APA authorizes agencies to dispense with certain procedures for rules, including notice and comment, when they find "good cause" to do so. "Good cause" includes a finding that following notice-and-comment procedures would be "impracticable, unnecessary, or contrary to the public interest." Section 553(d)(3) allows an agency, upon a finding of good cause, to make a rule effective immediately. "Good cause" has been held to include situations where immediate action is necessary to reduce or avoid health hazards or other imminent harm to persons or property, or where inaction would lead to serious dislocation in government programs or the marketplace.

Nevertheless, RSPA is concerned with the effect this rule may have on small business. Consequently, in preparing a regulatory evaluation under Executive Order 12866, RSPA analyzed, based on information currently available to the agency, the impact of this rule on all affected parties, including small businesses. The regulatory evaluation is available for review in the public docket.

The Regulatory Flexibility Act is concerned with identifying the economic impact of regulatory actions on small businesses and other small entities. It requires a final rule to be accompanied by a final regulatory flexibility analysis, consisting of a statement of the need for the rule, a summary of public comments received on regulatory flexibility issues and agency responses to them, a description of alternatives to the rule consistent with the regulatory statutes but imposing less economic burden on small entities, and a statement of why such alternatives were not chosen. Unless alternative definitions have been established by the agency in consultation with the Small Business Administration, the definition of "small business" has the same meaning as under the Small Business Act. Because no special definition has been established, RSPA employs the thresholds published (in 13 *CFR* 121.201) of 100 employees for wholesale trade in general and \$5,000,000 annual sales for retail trade in general. As noted above, liquefied petroleum gas dealers constitute the principal type of business

on which significant compliance costs will be imposed by this rule, in particular for equipment on retail-type delivery vehicles. Using the Small Business Administration definitions and the latest (1992) available *Census of Retail Trade*, it appears that over 95% of retail liquefied petroleum gas dealers must be considered small businesses for purposes of the Regulatory Flexibility Act. They accounted in the 1992 Census for over 50% of business locations and almost 43% of annual sales. Unpublished 1992 *Census of Wholesale Trade* figures provided to RSPA by the U.S. Bureau of the Census indicate that over 95% of merchant wholesalers of liquefied petroleum gas also must be considered small businesses; they accounted for approximately 40% of business locations and over 50% of annual sales.

The Regulatory Flexibility Act suggests that it may be possible to establish exceptions and differing compliance standards for small business and still meet the objectives of the applicable regulatory statutes. However, given the importance of small business in liquefied petroleum gas distribution, especially in its retail sector where improved emergency shut-off equipment is necessary to assure adequate safety during delivery operations, RSPA believes that it would not be possible to establish differing standards and still accomplish the objectives of Federal hazardous materials transportation law (49 U.S.C. 5101 *et seq.*). RSPA further believes that the discussion in the regulatory evaluation and in the February 19, 1997 **Federal Register** publication of the interim final rule, as to the need for regulatory action, issues raised by the public and the consideration of alternatives open to the government, apply to small as well as large businesses in the affected industries.

While certain regulatory actions may affect the competitive situation of an industry by imposing relatively greater burdens on small-scale than on large-scale enterprises, RSPA does not believe that this will be the case with this rule. The principal types of compliance expenditure effectively required by the rule, radio frequency emergency shut-off system installation, is imposed on each vehicle, whether operated within a large or a small fleet. While there is undoubtedly some administrative efficiency advantage to a large firm in being able to make a single set of arrangements for such installations on a large number of vehicles at a time, imposition of the requirement contemplates use of commercially-available equipment, without any need

for extensive custom development work that only a large firm could afford. While the only other compliance expenditure that is believed to be significant in the aggregate, that for documentation of emergency procedures, has been projected here on a per-firm rather than a per-vehicle or per-location basis, the average of \$62 estimated for each preparation does not appear high enough to significantly affect the economics of small-scale as contrasted with large-scale distribution of the affected commodities.

D. Unfunded Mandates Reform Act

This rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of \$100 million or more to either State, local, or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rule.

E. Paperwork Reduction Act

The information collection and recordkeeping requirements contained in this final rule have been submitted for renewal to the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1995. The requirement is currently approved under OMB Control Number 2137-0595. Section 1320.8(d), Title 5, Code of Federal Regulations requires that RSPA provide interested members of the public and affected agencies an opportunity to comment on information collection and recordkeeping requests. RSPA estimates that the total information collection and recordkeeping burden in this final rule is 18,573 hours, at a cost of \$422,660, for the development and maintenance of the comprehensive emergency operating procedure. These figures are based in RSPA's belief that standardized emergency operating procedures can be developed for use by a majority of industry members, thus reducing substantially the burden hours and cost to individual industry members of compliance with the emergency operating procedures requirement. Requests for a copy of this information collection should be directed to Deborah Boothe, Office of Hazardous Materials Standards (DHM-10), Research and Special Programs Administration, Room 8102, 400 Seventh Street, SW, Washington, DC 20590-0001. Telephone (202) 366-8553. Under the Paperwork Reduction Act of 1995, no person is required to respond to an information collection unless it displays a valid OMB control number.

F. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

List of Subjects in 49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Reporting and recordkeeping requirements.

In consideration of the foregoing, 49 CFR part 171 is amended as follows:

PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

1. The authority citation for Part 171 is revised to read as follows:

Authority: 49 U.S.C. 5101-5127; 49 CFR 1.53.

2. Section 171.5 is added to read as follows:

§ 171.5 Temporary regulation; liquefied compressed gases in cargo tank motor vehicles.

(a) *Operation of new and existing cargo tank motor vehicles.* For a cargo tank motor vehicle used to transport liquefied compressed gases, other than carbon dioxide, § 178.337-11(a)(1)(i) of this subchapter requires that each internal self-closing stop valve and excess flow valve must automatically close if any of its attachments are sheared off or if any attached hoses or piping are ruptured or separated. Other regulations in Parts 173 and 180 of this subchapter reference this requirement or similar requirements in effect at the time of manufacture of a cargo tank motor vehicle. Notwithstanding this requirement, a DOT MC 330 or MC 331 specification cargo tank motor vehicle, or a non-specification cargo tank motor vehicle conforming to the requirements of § 173.315(k) of this subchapter, may, without certification and demonstrated performance of the internal self-closing stop valve or the excess flow feature or self-closing stop valve of its emergency discharge control system, be represented for use and used to transport certain liquefied compressed gases under the following conditions:

(1) *Use.* The cargo tank motor vehicle must otherwise be operated, unloaded and attended in full conformance with all applicable requirements of this subchapter and the following additional requirements:

(i) Before initiating each transfer from the cargo tank motor vehicle, the person performing the function shall verify that each component of the discharge system is of sound quality, is free of leaks, and that connections are secure. In addition, prior to commencing the first transfer of each day, the transfer hose shall be subjected to full transfer pressure.

(ii) Prior to commencing transfer using a new or repaired transfer hose or a modified hose assembly for the first time, the hose assembly must be subjected to a pressure test. The pressure test must be performed at no less than 120 percent of the design pressure or maximum allowable working pressure (MAWP) marked on the cargo tank motor vehicle, or the pressure the hose is expected to be subjected to during product transfer, whichever is greater. This test must include all hose and hose fittings and equipment arranged in the configuration to be employed during transfer operations. A hose or associated equipment that shows signs of leakage, significant bulging, or other defects, may not be used. Where hoses are used to transfer liquefied compressed gases, a procedure must be instituted to ensure that hose assemblies are maintained at a level of integrity suited to each hazardous material. An acceptable procedure for maintenance, testing and inspection of hoses is outlined in publication RMA/IP-11-2, "Manual for Maintenance, Testing and Inspection of Hose", 1989 edition, published by the Rubber Manufacturers Association, 1400 K Street, N.W., Washington, DC 20005.

(iii) If there is an unintentional release of lading to the environment during transfer, the internal self-closing stop valve shall be promptly activated, and the qualified person unloading the cargo tank motor vehicle shall promptly shut down all motive and auxiliary power

equipment. Prompt activation of the internal self-closing stop valve may be accomplished through:

(A) Compliance with § 178.337-11(a)(1)(i) of this subchapter; or

(B) A qualified person positioned within arm's reach of the mechanical means of closure for the internal self-closing stop valve throughout the unloading operation; except, that person may be away from the mechanical means only for the short duration necessary to engage or disengage the motor vehicle power take-off or other mechanical, electrical, or hydraulic means used to energize the pump and other components of the cargo tank motor vehicle's discharge system; or

(C) A fully operational remote-controlled system capable of stopping the transfer of lading by operation of a transmitter carried by a qualified person attending unloading of the cargo tank motor vehicle. Where the means for closure of the internal self-closing stop valve includes a remote-controlled system, the attendance requirements of § 177.834(i)(3) of this subchapter are satisfied when a qualified person:

(1) Is carrying a radio transmitter that can activate the closure of the internal self-closing stop valve;

(2) Remains within the operating range of the transmitter; and

(3) Has an unobstructed view of the cargo tank motor vehicle at all times that the internal stop-valve is open.

(iv) A cargo tank motor vehicle that has an emergency discharge system conforming to the requirements in § 178.337-11(a)(1)(i) of this subchapter may be operated under the provisions of this paragraph (a)(1).

(v) A comprehensive written emergency operating procedure must be developed for all transfer operations and hazmat employees who perform unloading functions must be trained in

its provisions. The emergency operating procedure must be prominently displayed in or on the cargo tank motor vehicle.

(vi) As required by § 172.704 of this subchapter, each manufacturer, assembler, retester, motor carrier and other hazmat employer subject to the requirements of this section shall ensure that its hazmat employees are trained to properly perform these new function-specific requirements including the meaning of the marking specified in paragraph (b) of this section. The hazmat employer shall ensure that a record of the training is created, certified, and maintained as specified in § 172.704(d) of this subchapter.

(2) *Continuing qualification.* An existing in-service cargo tank motor vehicle may continue to be marked and documented as required by Part 180 of this subchapter if the following statement is added to the Certificate of Compliance by the owner or operating motor carrier: "Emergency excess flow control performance not established for this unit."

(3) *New cargo tank motor vehicles.* A new (unused) cargo tank motor vehicle manufactured, marked and certified prior to March 1, 1999, may be marked and certified as conforming to specification MC 331 if it otherwise meets all requirements of the specification and the following statement is added to the certification document required by § 178.337-18 of this subchapter: "Emergency excess flow control performance not established for this unit."

(b) *Marking.* The following marking must be displayed on a cargo tank motor vehicle used or represented for use under this section:

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**OPERATING UNDER
49 CFR 171.5**

(1) The letters must be white and the background black.

(2) The letters must be at least 1.5cm in height.

(3) The marking must be 6cm×15cm.

(c) Requirements of this section are applicable to a cargo tank motor vehicle used to transport liquefied compressed gases, other than carbon dioxide, from August 16, 1997 through March 1, 1999.

Issued in Washington, DC on August 13, 1997, under authority delegated in 49 CFR part 1.

Kelley Coyner,

Acting Administrator, Research and Special Programs Administration.

Appendices

Note: The following appendices will not appear in the Code of Federal Regulations.

Appendix A—National Propane Gas Association Petition for Reconsideration of Interim Final Rule

March 21, 1997

By First Class Mail

The Honorable Dharmendra K. Sharma,
Administrator, Research & Special Programs Administration, U.S. Department of Transportation, 400 7th Street, S.W., Washington, D.C. 20590-0001.

Re: Amendment to NPGA's Petition for Reconsideration

Dear Administrator Sharma: On behalf of the National Propane Gas Association ("NPGA" or the "Petitioner") and its members, we hereby amend our Petition for Reconsideration of the Emergency Interim Final Rule on Cargo Tank Motor Vehicles in Liquefied Compressed Gas Service ("Interim Final Rule"), Docket No. RSPA-97-2133 (HM-225), filed on March 21, 1997, to correct a typographical error.

On the bottom of page eight (8) of our Petition for Reconsideration, we inadvertently stated that the \$660 million in additional costs would represent "a potential increase of .07 cents per gallon to the consumer." The costs would reflect a potential increase of 7 cents per gallon to the consumer. Therefore, the sentence containing this statement should read as follows: "This figure represents a potential increase of \$.07 per gallon to the consumer."

We apologize for any confusion this error may have caused.

Respectfully submitted,

Eric A. Kuwana,

Counsel for the National Propane Gas Association.

March 21, 1997

By Hand Delivery

202-457-6420

Dr. Dharmendra K. Sharma,
Administrator, Research & Special Programs Administration, U.S. Department of Transportation, 400 7th Street, S.W., Washington, D.C. 20590-0001.

Re: Petition for Reconsideration of Interim Final Rule, Pursuant to 49 CFR § 106.35; and Petition for Rulemaking Pursuant to 49 CFR § 106.31

Dear Administrator Sharma: On behalf of the National Propane Gas Association ("NPGA" or the "Petitioner") and its members, we hereby petition the Research and Special Programs Administration ("RSPA") of the U.S. Department of Transportation ("DOT") for reconsideration of a single requirement imposed in the Emergency Interim Final Rule on Cargo Tank Motor Vehicles in Liquefied Compressed Gas Service ("Interim Final Rule"), Docket No. RSPA-97-2133 (HM-225), which was published on February 19, 1997 (62 FR 7638). By this petition, NPGA and its members do not seek or otherwise request reconsideration of the entire Interim Final Rule. Instead, NPGA seeks reconsideration of the single requirement addressed herein. At the same time, we remain committed to work with RSPA to ensure the safe loading and unloading of LP-gas (or propane gas) from cargo tank motor vehicles.

The Petitions

Pursuant to the procedural provisions in 49 CFR § 106.35(a), we specifically petition RSPA for reconsideration of the additional attendance requirement in 49 CFR § 171.5(a)(1)(iii), which states, in relevant part, that "[t]he person who attends the unloading of a cargo tank motor vehicle must have an unobstructed view of the discharge system and be within arm's reach of a means for closure (emergency shut-down device) of the internal self-closing stop valve or other device that will immediately stop the discharge of product from the cargo tank." This language effectively mandates that two or more attendants travel to and be present during the unloading of propane gas from a cargo tank motor vehicle. The additional attendance requirement is not justified by the exceptional safety record of the propane gas industry, is not necessary to ensure the safe unloading of propane gas from a cargo tank motor vehicle, and will result in enormous costs and devastating impacts to the propane gas industry.

This Petition for Reconsideration satisfies the standard set forth in 49 CFR § 106.35(a) for such petitions in that compliance with the additional attendance requirement in § 171.5(a)(1)(iii) is neither practicable, reasonable, nor in the public interest. The provision, which was effective immediately upon publication of the Interim Final Rule on February 19, is extremely costly and will have an immediate and severe financial impact on the industry. Because the additional attendance requirement in the Interim Final Rule has no demonstrated nexus to the reported accidents or incidents cited by RSPA in that rule, RSPA cannot justify the approximately \$660 million cost of compliance. NPGA and its members strongly believe that, based on the clear weight of the

evidence and the other reasons set forth herein, this Petition for Reconsideration of the additional attendance requirement in the Interim Final Rule warrants the removal of that burdensome requirement by RSPA.¹ Especially because the requirement was imposed without any opportunity for notice and comment, we further request that the effectiveness of the additional attendance requirement be stayed pending consideration of this petition.

As discussed further below, NPGA believes the magnitude of the impact on the propane gas industry justifies RSPA's acting on its Petition for Reconsideration immediately without delay, an opportunity for notice and comment, or any other proceedings. Such expedited treatment is expressly contemplated in the procedural provisions of § 106.35. Nonetheless, pursuant to the provisions in 49 CFR § 106.31, we additionally petition RSPA for rulemaking to amend 49 CFR § 171.5(a)(1)(iii) in the event RSPA denies the NPGA's Petition for Reconsideration of the Interim Final Rule.

NPGA's Efforts

Initially, we need to emphasize that NPGA and its members have an absolute commitment to the safe unloading of propane gas from cargo tank motor vehicles. Simply stated, the propane gas industry must maintain a record of safety in order to keep its customers, to receive insurance, to maintain a favorable perception in the community and, at the bottom line, to remain in business. The propane industry has achieved an admirable record of safety.

Consistent with this absolute commitment to safety, members of the propane gas industry undertook an immediate investigation after the September 1996 incident at Sanford, North Carolina, and voluntarily evaluated and disclosed the specific issue relating to emergency discharge control systems that triggered the Interim Final Rule. Further, NPGA voluntarily formed a task force to identify viable alternatives to the current emergency discharge control systems and to ensure the safe unloading of propane gas under all conditions.² Consistent with this process, NPGA and its members continue to embrace the opportunity to participate with RSPA to identify and fashion measures to ensure the safe unloading of propane gas from cargo tank motor vehicles in every circumstance.

NPGA Membership

NPGA is the national trade association representing the LP-gas (principally propane) industry and has about 3,500 member entities and companies in all 50 states, including 37 affiliated state and regional associations. Propane gas is vital to the economic well-

¹ NPGA proposes instead that RSPA adopt the less burdensome, but equally safe, requirement that "[t]he vehicle driver be continually in attendance and control of the loading and unloading operations."

² A brief discussion of NPGA's efforts, including those related to the Special Presidential Task Force, can be found in NPGA's prepared Statement submitted to Docket No. RSPA-97-2133 (HM-225) during the public meeting on March 20, 1997. The Statement is incorporated herein by reference.

being of this nation and is distributed for critical industrial, commercial and residential uses every single day of the year. While the single largest group of NPGA members are retail marketers of propane gas, the membership also includes propane producers, transporters and wholesalers, as well as manufacturers and distributors of associated equipment, containers and appliances. Propane gas is used in over 18 million installations nationwide for home and commercial heating and cooking, in agriculture, in industrial processing, and as a clean air alternative engine fuel for both over-the-road vehicles and industrial lift trucks.

The majority of NPGA's members are small businesses, which bear a disproportionate burden of the Interim Final Rule. According to its own analysis, RSPA acknowledges that at least 90 percent of the businesses affected by the Interim Final Rule are small businesses (62 FR 7646). It is NPGA's position that the additional attendance requirements will have an immediate and devastating financial impact on these small businesses.³ A more detailed analysis of the economic impact of the additional attendance requirement is provided below.

Industry Safety Record

The propane gas industry has achieved an extraordinary safety record. From 1986 to 1995, there were almost 10 million tank transport truck deliveries and almost 300 million bobtail deliveries of propane. (Attachment A).

Those deliveries carried almost 90 billion gallons of propane to residential, commercial, agricultural and industrial consumers throughout every state and county in the United States. (Attachment B).⁴ Except for the incident in Sanford, North Carolina described below, NPGA is unaware of any other serious reported incident during this 10 year period relating to a failure of the emergency discharge control system during the unloading of a tank transport truck. There have been no fatalities, injuries, fires or explosions caused by a failure of the emergency discharge control system during the unloading of a tank transport truck in

³ RSPA asserts that this rulemaking is exempt from the Regulatory Flexibility Act, as amended, 5 U.S.C. §§ 601 et seq., because the Act is not applicable when a Notice of Proposed Rulemaking is not required (62 FR 7646). RSPA's argument relies on the validity of its "good cause" finding that it was impracticable, unnecessary or contrary to the public interest to provide for notice and comment. Because the Interim Final Rule was not tailored carefully or otherwise necessary to avoid any imminent harm, RSPA's finding of good cause is deficient and cannot justify an exemption from the Act.

⁴ Based on current data compiled by NPGA, there were 9,891,403 tank transport deliveries and 296,742,077 bobtail deliveries for a total of 306,633,479 deliveries of propane during the 10 year period. These deliveries carried 89,022,623,000 gallons of propane. Indeed, this estimate is conservative because in actuality, these quantities of propane are transported twice: first by transport truck from the terminal to the bulk storage retail facility, and then by bobtail to the residential, commercial or industrial users. And, each instance of transportation itself involves two transfers: loading and unloading.

more than 10 million deliveries of propane. As to the smaller bobtail cargo tanks, RSPA acknowledges in the Interim Final Rule that only 9 incidents of propane release have been reported during the past 10 years involving any allegation of a failure of the emergency discharge control system on a bobtail cargo tank.⁵ None of the 9 incidents of propane release cited by RSPA resulted in any fatalities. This represents approximately one release per 30 million bobtail deliveries. Based on these numbers, this also represents one release per almost 10 billion gallons of propane delivered in the past ten years.

The Sanford Event

Notwithstanding these statistics, RSPA promulgated the Interim Final Rule without providing for notice and comment after an accidental release of propane that involved no fire, no explosion and no injuries or fatalities in Sanford, North Carolina on September 8, 1996. The release involved a large cargo tank semi-trailer pulled by a highway truck tractor unloading a cargo of propane into permanent storage tanks at a propane marketing facility. Shortly after the transfer operation began, the transfer hose separated from the transfer connection at its juncture with the plant piping and began discharging liquid propane into the atmosphere. The vehicle driver heard sounds unusual for a transfer operation and shut off the vehicle engine. According to the report of the Federal Highway Administration ("FHWA") inspector, the driver was not able to get to the remote controls to close the internal stop flow valve. Nonetheless, apparently as a result of the failure of the excess flow protection in the cargo tank motor vehicle, the entire propane cargo of approximately 9,700 gallons was discharged into the atmosphere. There was no ignition of the propane, and thus no fire, explosion, loss of life or loss of property.

More importantly, the emergency flow protection built into the permanent storage tanks at the propane marketing facility apparently did not activate automatically as designed and, as a result, the approximately 35,000 gallons of propane in the storage facility were also discharged into the atmosphere. The failure of the flow protection built into the permanent storage tanks contributed the vast majority of the released propane, not the cargo tank motor vehicle. Because RSPA apparently does not have jurisdiction over the permanent storage tanks, the Interim Final Rule does not seek to address the most significant failure connected with the release at Sanford, North Carolina.

There is absolutely no evidence that the event at Sanford could not have been

⁵ NPGA notes that the exact causes of the 9 incidents of propane release cited by RSPA in the Interim Final Rule are not clear. There is absolutely no evidence in the Interim Final Rule that the additional attendance requirement in § 171.5(a)(1)(iii) would have prevented those 9 incidents or is tailored to address the causes of those incidents. NPGA strongly believes that improved training, hose testing and system inspections are more likely to prevent accidental releases of propane than the burdensome and unnecessary additional attendance requirement.

prevented by the improved training, hose testing and system inspection requirements proposed by NPGA in its Application for an Emergency Exemption and subsequently adopted by RSPA in its Interim Final Rule.

The Other Incidents Cited By RSPA

In addition to the Sanford incident, RSPA cites to six other unrelated incidents involving propane ignition and tragic fatalities. Based in large part on these six unrelated incidents, RSPA promulgated the Interim Final Rule without notice and comment to prevent the "grave consequences" of an accidental release of propane. Significantly, RSPA failed to cite a single instance of a documented failure of an emergency discharge control system on a cargo tank motor vehicle resulting in an explosion, fire, injury or loss of life in the Interim Final Rule. The unrelated six incidents, as listed by RSPA in the Interim Final Rule, are as follows:

- On July 25, 1962 in Berlin, NY, an MC 330 bulk transport ruptured releasing about 6,900 gallons of liquid propane. Ignition occurred. Ten persons were killed, and 17 others were injured. Property damage included total destruction of 18 buildings and 11 vehicles.
- On March 9, 1972 near Lynchburg, VA, an MC 331 bulk transport overturned and slid into a rock embankment. The impact ruptured the tank's shell releasing about 4,000 gallons of liquid propane. Ignition occurred. Two persons were killed and five others were injured. Property damage included a farmhouse, outbuildings and about 12 acres of woodland.
- On April 29, 1975, near Eagle Pass, Texas, an MC 330 bulk transport struck a concrete headwall and ruptured releasing more than 8,000 gallons of liquefied petroleum gas. The ensuing fire and explosion killed 16 persons, injured 51, and destroyed 51 vehicles.
- On February 22, 1978, 23 tank cars derailed in Waverly, Tennessee. During wreck-clearing operations, a 30,000 gallon tank car containing liquefied petroleum gas ruptured. The ensuing fire and explosion killed 16 persons, injured 43, and caused \$1.8 million in property damage.
- On December 23, 1988, in Memphis, Tennessee, an MC 330 bulk transport struck a bridge abutment and ruptured releasing 9,388 gallons of liquefied petroleum gas. The ensuing fire and explosion killed eight persons and injured eight.
- On July 27, 1994, in White Plains, New York, an MC 331 bulk transport struck a column of an overpass and ruptured releasing 9,200 gallons of propane. Ignition occurred. The driver was killed, 23 people were injured, and an area within a radius of approximately 400 feet was engulfed in fire. (62 FR 7639.)

In five of the above listed incidents, a cargo tank motor vehicle was involved in a serious accident resulting in a ruptured tank and subsequent ignition of the propane gas. While tragic examples of highway accidents, none of these incidents would have been avoided or minimized in any manner by the new requirements of the Interim Final Rule or an improved emergency discharge control

system. More specifically, the additional attendance requirement in § 171.5(a)(1)(iii) could not have prevented or helped to prevent these tragic accidents.⁶

Finally, the sixth incident listed by RSPA, the February 22, 1973, accident in Waverly, Tennessee, involved rail tank cars, not cargo tank motor vehicles, and thus is completely unrelated to the Interim Final Rule. In fact, the rupture in this particular case did not even occur until wreck-clearing operations had commenced. Again, there is absolutely no evidence that this rail accident, or the five other above listed accidents, could have been prevented to any extent by the wholly unrelated requirements in the Interim Final Rule.

This Petition for Reconsideration Meets the Standard Set Forth in 49 CFR 106.35(a)

The petition for reconsideration meets the standard set forth in 49 CFR 106.35(a) in that the challenged provision is not reasonable, practicable, nor consistent with the public interest.

The Additional Attendance Requirement Is Not Reasonable

The Administrative Procedure Act ("APA"), 5 U.S.C. § 706(2)(A) provides that an agency's actions in promulgating rules may be set aside if "arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law."⁷ In order to withstand a challenge that one of its rules is arbitrary or capricious, an agency "must examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.'"⁸ Thus, courts will scrutinize whether relevant data was taken into consideration by the agency when it fashioned its regulatory requirements.⁹ Additionally, reviewing courts will give increased deference (1) to an agency depending on its degree of persuasiveness of the agency's rationale for a rule and (2) to a long-standing rule.¹⁰

⁶Indeed, if the Interim Final Rule had been in effect at the time of these five accidents, a second person likely would have been riding along with the driver of the cargo tank motor vehicle at the time of the accident because of the additional attendance requirement for the unloading of propane. Simply stated, the Interim Final Rule would have increased, not decreased, the loss of life in each incident cited by RSPA.

⁷See also *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 414 (1971); *Bowman Transportation, Inc. v. Arkansas Best Freight System, Inc.*, 419 U.S. 281 (1974).

⁸*Motor Vehicle Manufacturers Association of the United States, Inc. et al. v. State Farm Mutual Automobile Insurance Co., et al.*, 463 U.S. 29, 43 (1983) citing *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962).

⁹The Court in *Motor Vehicle Mfr. Assoc. noted* "[n]ormally, an agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." 463 U.S. at 43.

¹⁰*Visiting Nurse Association of North Shore, Inc. v. Bullen, et al.*, 93 F.3d 997, 1007 (1st Cir. 1996);

The new requirement added to Section 171.5(a)(1)(iii) by the Interim Final Rule is not reasonable in that the economic burdens it will place on the industry are not justified by the industry's safety record and are not reasonably tailored to remedy the problems identified by RSPA in its preamble to the Interim Final Rule, and the explanation provided by the agency does not provide a rational connection between the facts found and the choices made. The six incidents other than Sanford cited by RSPA in the Interim Final Rule still would have occurred if the additional attendance requirement was in effect. Conversely, there is no evidence to suggest that the Sanford incident would not have been prevented by a combination of the improved training, hose testing, system inspection and qualification requirements contained in the Interim Final Rule and a requirement that the vehicle driver be continually in attendance and control of the loading and unloading operations. Thus, RSPA has "offered an explanation for its decision which runs counter to the evidence before the agency."¹¹ There is simply no evidence that having additional service personnel at each unloading would have prevented any of the incidents identified and cited by RSPA in its Interim Final Rule.¹² In sum, the severe economic consequences of the challenged requirement are not reasonably related to the goals cited by RSPA.

The Cost/Benefit Analysis Defies Common Sense

An agency's rulemaking must be tailored to address the problem at hand, and the economic burden to the regulated industry must bear some reasonable relationship to the goal of the regulation. In this case, it is obvious that RSPA either did not consider or determined to disregard the unjustified and unnecessary economic burden on the propane industry. While the propane industry is working diligently to develop, manufacture and retrofit a new emergency discharge control system for cargo tank motor vehicles, operators of all tank transport trucks and bobtails will need to recruit, hire, train and pay new employees to meet the additional attendance requirement in the Interim Final Rule if it is allowed to stand.

The economic impacts of the additional attendant requirement are extremely onerous for the propane industry and its customers. Based on a representative survey of its members, NPGA estimates the cost of compliance with the additional attendance requirement to be \$660 million, taking into account costs associated with employee recruitment, function specific training, salary, and employee benefits.¹³ This figure

Bowen v. American Hosp. Ass'n., 476 U.S. 610, 64 n. 34; *Mayburg v. Sec. Of Health and Human Services*, 740 F.2d 100, 106 (1st Cir. 1984).

¹¹*Motor Vehicle Mfr. Assoc.*, supra., at 43.

¹²See *American Horse Protection Assoc. v. Lyng*, 812 F.2d 1 (D.C. Cir. 1987) (agency's decision set aside where agency failed to consider evidence which demonstrated that the factual presumptions upon which the agency's decision was based were inaccurate).

¹³Based on 1995 retail sales volume of 9,429,570 gallons multiplied by \$.07 per gallon.

represents a potential increase of .07 cents per gallon to the consumer. Even according to the conservative estimates in the Government's Preliminary Regulatory Evaluation for the Interim Final Rule filed in Docket No. HM-225 on March 19, 1997, the aggregate cost to the propane industry for a second operator to comply with the additional attendance requirement in § 171.5(a)(1)(iii) is \$237,017,143 annually.¹⁴

The extraordinary compliance costs estimated by both NPGA (\$660 million) and RSPA (almost \$240 million) as a result of the additional attendant requirement in the Interim Final Rule stand in sharp contrast to the proven safety record of the propane industry over many years. In the Interim Final Rule, RSPA cites to only 9 incidents of releases relating to the emergency discharge control systems on cargo tank motor vehicles, none of which resulted in any fatalities. RSPA also cites to 6 tragic incidents that are wholly unrelated to emergency discharge control systems on cargo tank motor vehicles. Even in the Government's Preliminary Regulatory Evaluation, RSPA's search of the DOT's Hazardous Materials Incident Reporting System ("HMIS") found only 16 reports of propane releases, which may or may not be related in any way to emergency discharge control systems, from 1990 to 1996. Those 16 releases averaged 3,109 gallons of propane¹⁵—and there were no fatalities and only 2 serious and 2 minor injuries resulting in total damages of \$932,166.

Most significantly, the Government's own analysis of the aggregate total costs to society from releases of propane as a result of a

¹⁴The estimate on its face is faulty. On page 16 of the Preliminary Regulatory Evaluation, RSPA concludes that only bobtails will be required to hire a second attendant to remain with the bobtail throughout the entire day of deliveries. RSPA apparently hypothesizes that the only increased costs for the larger tank transport trucks will be the use of a second attendant during the two hours of actual unloading at a total hourly rate of \$13.38. RSPA apparently makes the unsupported assumption that the larger tank transports will be able to hire a qualified and trained individual at the point for unloading and be able to compensate that individual for only two hours work. This assumption is further undermined by the fact that it is common practice in the industry for deliveries to be made in the evenings and on weekends so as not to disturb the operations of the recipient. As there would not ordinarily be anyone else on site at these times, there would necessarily have to be a second person riding in the truck, or someone would have to be hired at overtime wages to attend the transfer during the evening or on the weekend period.

¹⁵The chart containing this information on page 4 of the Preliminary Regulatory Evaluation acknowledges that the estimated high amount of any single release was 40,000 gallons, which included the 30,000 gallons released from the two storage tanks during the Sanford event. Discounting the 30,000 gallons from that event, which was completely unrelated to any failing of an emergency control system on the cargo tank motor vehicle, the average per release decreases from 3,109 (49,744/16) gallons to 1,234 (19,744/16) gallons. This reduction would reduce greatly the annual cost calculation for Alternative 1 ("do nothing") and Alternative 2 ("temporarily withdraw the requirement for emergency discharge system") in the Government's Preliminary Regulatory Evaluation.

decision not to implement any changes or new regulatory requirements is between \$322,192 to \$1,520,705 annually.¹⁶ Simply stated, according to the Government's own estimates, complete Government inaction (e.g., no Interim Final Rule) on the issue of emergency discharge control systems on cargo tank motor vehicles would result in an annual total cost below \$1.5 million. Moreover, the Government's analysis demonstrates that a total suspension of the regulatory requirement for an emergency discharge control system on cargo tank motor vehicles would result in essentially the same relatively low range of cost to society—between \$322,192 to \$1.5 million. Because the additional attendance requirement has not been demonstrated to rectify any specific safety problem and its imposition is wholly unsupported by the incidents cited by RSPA in its Interim Final Rule, the requirement cannot be justified in light of the incredible increase in costs to the industry (\$240 to \$660 million) compared to costs to society from Government inaction (\$322,192 to \$1.5 million).

Finally, NPGA submits that the additional attendance requirement in § 171.5(a)(1)(iii) will result in additional deaths and increased costs to society based on the incidents cited by RSPA in its Interim Final Rule. Of the five cargo tank motor vehicle accidents cited by RSPA, an attendant passenger could not have prevented the accidents and likely would have died in each case. Using the Government's own estimates of \$2.7 million for the value of a single life from the Preliminary Regulatory Evaluation, those five additional deaths would have resulted in \$13.5 million increased aggregate costs to society from that requirement. These additional deaths and increased costs are certainly not warranted by the wholly undocumented and questionable benefits.

The overwhelming economic evidence cited above should not be construed in any manner to indicate a lack of concern by NPGA about safety in the propane industry. NPGA and its members are committed to the safe loading and unloading of propane gas from cargo tank motor vehicles under all conditions. Moreover, we are not arguing that regulations that increase safety cannot increase costs for the regulated industry and its customers. But in this particular case, the additional attendance requirement is not based on any evidence that the requirement is reasonable, necessary, practicable and consistent with the public interest. Simply stated, the additional attendance requirement is regulatory overkill and an enormous burden on the propane industry and its customers without any demonstrated benefits to society.

The Additional Attendance Requirement Is Not Practicable

NPGA and its members additionally seek reconsideration of Section 171.5(a)(1)(iii) of

¹⁶ As stated above, this calculation would decrease due to the Government's overestimate of the average number of gallons released in the 16 reported incidents.

the Interim Final Rule in that compliance with this requirement is not practicable.¹⁷

First, in addition to the costs of adding a second attendant described above, two attendants may be insufficient to meet the letter of the provisions for the majority of bobtail deliveries. Approximately half of the piping on a bobtail delivery truck is underneath the cargo tank between the vehicle chassis frame rails. The piping therefore may not be in view of someone standing beside the vehicle. Thus, to comply literally with the provisions of the Rule, one attendant must be under the truck and a second attendant must be at the remote control on the internal valve, in order to have all the discharge system in view during the transfer operation. These two attendants are, of course, in addition to the third, principal delivery person, who would attend the transfer of product. The economic impact outlined above therefore would be doubled.

Second, the recruiting, hiring and training of the additional attendants required by this new requirement makes the rule not practicable. The Interim Final Rule, by its very terms, is temporary in nature. Nonetheless, the rule mandates a lengthy process of recruiting, hiring and training, some of which may not be completed by the end of the temporary period on August 15, 1997. Moreover, the extremely high fixed costs for such a process in light of the temporary nature of the rule magnifies that the rule is not practicable. Finally, NPGA submits that the arm's reach requirement now contained in Section 171.5(a)(1)(iii) violates the National Fire Prevention Association ("NFPA") 58's requirement for separation of the receiving tank and source, further rendering the provision impracticable in that compliance with the Interim Rule may cause violation of applicable fire code provisions.

The Additional Attendance Requirement Is Contrary to the Public Interest

An agency is to consider the important aspects of a problem in fashioning a rule.¹⁸ Here, RSPA has failed to address several key aspects of the issue presented and, as a result, has promulgated a rule that is contrary to the public interest. Although RSPA may promulgate rules for the safe transport of hazardous materials, such rules cannot properly be issued where the burden and impact on the public is not warranted or has not been considered in light of its tangible benefits.

The public interest will not be served by enforcement of the additional attendance requirement in that the economic burden of compliance will disproportionately impact

¹⁷ At the March 20, 1997 Public Meeting, the issue was raised as to the requirements now contained in 49 CFR § 177.834(i)(3) that an attendant have an unobstructed view of the cargo tank and be within 7.62 meters (25 feet) of the cargo tank. Paragraph 177.834(i)(5) provides that the delivery hose, when attached to the cargo tank, is considered part of the vehicle. Under this definition, an attendant monitoring the delivery within 25 feet of the delivery hose would be in compliance with the previous section of the regulations.

¹⁸ Motor Vehicle Manufacturers Association, 463 U.S. at 43.

small business. As noted above, RSPA estimates that at least 90 percent of the businesses impacted by the Interim Final Rule are small businesses under the Small Business Administration's size standard definitions (62 FR 7646). Thus, the largest percentage by far of the estimated \$660 million in compliance costs will be borne by small businesses. Because the cost of an additional attendant will be a huge fixed cost and small businesses will have less revenue to absorb this new fixed cost, it is likely that many of these small businesses will cease to exist. The loss of these small businesses will result in higher unemployment and will have a very real and direct impact on their communities. Moreover, to the extent that small businesses are able to survive, they will pass these costs on to the consumer. Unnecessary higher costs for all consumers of propane gas is also contrary to the public interest.

The preamble to the Interim Final Rule specifically seeks comment as to whether there are alternatives to the Final Rule that accomplish RSPA's objectives, while at the same time imposing less of an impact on small businesses. NPGA strongly believes that the Interim Rule's testing, training, and qualification requirements, together with the requirement that the vehicle driver be continually in attendance and control of the loading and unloading operations, meet RSPA's objectives, while at the same time preserving the continued economic viability of the small businesses comprising the majority of this industry.

Request for Relief

NPGA seeks expedited reconsideration of the additional attendance requirement added by the new provisions of § 171.5(a)(1)(iii) to existing part 171 of Title 49, Code of Federal Regulations, by the Interim Final Rule. The additional attendance requirement, which effectively mandates the physical presence of a second attendant during the unloading of a cargo tank motor vehicle, imposes unreasonable and unnecessary financial burdens on the affected industry, and is not in the public interest in that it is not reasonably tailored to achieve the safety results at which it is aimed. NPGA further submits that the requirement will have a disproportionate and irreparable adverse effect on small businesses nationwide. As a result, the NPGA respectfully requests that the Administrator stay the effectiveness of the additional attendance requirement in § 171.5(a)(1)(iii) pending a decision on this Petition.

For the reasons cited above, NPGA petitions RSPA to reconsider the additional attendance requirement in the Interim Final Rule. As an alternative, NPGA recommends the language from our Application for Emergency Exemption requiring that "[t]he driver will be continually in attendance and control of the loading and unloading operations."

Conclusion

For the foregoing reasons, NPGA, on behalf of its members, petitions RSPA to reconsider Section 171.5(a)(1)(iii) of its Interim Final Rule, and to stay the effectiveness of this

provision during its consideration of our petition. In the event RSPA denies this petition, we request that it be converted to a petition for rulemaking to amend this provision under 49 C.F.R. § 106.31.

Please do not hesitate to contact us in the event RSPA requires further information to process this petition.

Respectfully submitted,
 Mary Beth Bosco, Eric A. Kuwana,
Counsel for the National Propane Gas Association.
 Attachments

ATTACHMENT A.—Propane Tank Truck Deliveries
 [1986–1995]

Year	Propane fuel sales 1,000 gallons	Number of bobtail deliveries represented	Number of transport deliveries represented	Scheduled commercial airline departures
1986	7,999,283	26,664,277	888,809	
1987	8,299,830	27,666,100	922,203	
1988	8,484,351	28,281,170	942,706	
1989	9,763,059	32,543,530	1,084,784	
1990	8,281,606	27,605,353	920,178	
1991	8,611,571	28,705,237	956,841	
1992	9,217,256	30,724,187	1,024,140	
1993	9,483,509	31,611,697	1,053,723	
1994	9,452,588	31,508,627	1,050,288	
1995	9,429,570	31,431,900	1,047,730	7,700,000
Total	89,022,623	296,742,077	9,891,403	7,700,000
		Total Deliveries—306,633,479		

ATTACHMENT B.—SALES OF PROPANE BY PRINCIPAL FUEL USES, 1986–1995
 [1,000 Gallons]

Year	Residential and commercial	Industrial ¹	Engine fuel	Farm	Other ²	Total
1986	4,368,591	1,614,711	654,168	1,131,905	229,908	7,999,283
1987	4,837,271	1,387,696	629,848	1,075,463	369,552	8,299,830
1988	4,806,779	1,695,978	582,749	1,063,537	335,308	8,484,351
1989	5,388,742	1,709,440	581,155	1,172,811	910,911	9,763,059
1990	4,974,632	1,340,196	531,325	1,135,712	299,741	8,281,606
1991	5,324,740	1,287,077	542,064	1,133,539	324,151	8,611,571
1992	5,213,548	1,918,169	500,092	1,363,327	222,120	9,217,256
1993	5,460,571	1,914,762	500,278	1,383,022	224,876	9,483,509
1994	5,375,245	2,032,765	507,193	1,405,033	132,352	9,452,588
1995	5,513,207	1,994,819	466,636	1,322,556	132,352	9,429,570
Total						89,022,623

¹ Includes refinery fuel use, synthetic rubber manufacture, and gas utility.
² Includes secondary recovery of petroleum and SNG feedstock.
 Source: American Petroleum Institute.

Appendix B—Ferrellgas et al. Petition for Reconsideration of Interim Final Rule
 April 21, 1997

The Honorable Dharmendra K. Sharma,
 Administrator, Research and Special Programs Administration, U.S. Department of Transportation, 400 7th Street, SW, Room 8410, Washington, DC 20590.

Dear Administrator Sharma: On March 21, 1997, Ferrellgas, LP., Suburban Propane, L.P., AmeriGas Propane L.P., Agway Petroleum Corporation, and Cornerstone Propane Partners, L.P., (collectively "Petitioners") filed a Petition for Reconsideration pursuant to 49 CFR 106.35 seeking modification of an emergency interim final rule published at 62 FR 7638 (February 19, 1997). By this letter, National Propane, L.P., seeks to join in that

Petition as a party. With the addition of National Propane, L.P., Petitioners include six of the eight largest propane service companies in the Nation. In addition to adding National Propane as a party, Petitioners seek to supplement their pending petition with the following supplemental cost benefit information to assist you in the evaluation of their Petition.

As discussed in their pending Petition, Petitioners' specific concern is with an operator attendance requirement imposed as an element of an interim compliance option provided under the emergency rule. The operator attendance requirement in question was designed specifically to address the risk that the automatic excess flow feature on an MC 330, MC 331 or non-specification cargo tank vehicle in liquefied compressed gas service may fail to operate as required under 49 CFR 178.337–11(a) during product

unloading. Under 49 CFR 178.337–11(a), the automatic shut-off systems in question are required to function only "in the event of a complete failure (separation) of any attached hoses or piping," not "in response to leaks or partial failure of a pipe, fitting, or hose." 62 FR 7638 at 7643 col. 2 (February 19, 1997). The risk addressed by this operator attendance requirement is thus the risk that: (1) A complete separation of attached hoses or piping will occur; (2) that such separation will occur during product unloading (when the attendance requirement applies); and (3) that the automatic excess flow feature will not actually function as required. Because Petitioners are concerned principally with the operator attendance requirement as it applies to bulk tank vehicles (bobtails), Petitioners have attempted to quantify the magnitude of this risk in the bobtail context.

Based on RSPA's suggestion that nine events involving the failure of automatic excess flow features have occurred in bobtail service over the last seven years,¹ the likelihood of such an event occurring during a bobtail delivery is extremely remote: on the order of one in 35,000,000 based on calculations presented in Petitioners' Petition for Reconsideration. Nevertheless, RSPA Officials have expressed concern that its own data may be underinclusive, and that the actual risk of such an event might therefore be higher.

In an effort to address this concern, Petitioners have attempted to identify any incidents in the course of their own operations in which an excess flow feature failed (or may have failed) to operate after a complete separation of attached hoses or piping occurred during the unloading of a bobtail vehicle. In this effort, Petitioners have examined their safety and insurance records, and have consulted with employees who would be expected to be aware of any such instances that may have occurred. In most cases, documentary information was found to be available going back at least three years, and employees were identified who could be expected to be aware of any incidents that may have occurred within the last decade (in several cases, the employees consulted had a knowledge base going back several decades). As a result of these efforts, Petitioners collectively have been able to identify a total of only three such instances.² Although Petitioners cannot positively establish that they have identified every such incident that has occurred in their operations over the last seven years, they are very confident—based upon the nature and extent of the inquiries undertaken—that their tally of incidents is not substantially in error.

Because Petitioners collectively operate slightly over one third of the estimated population of 18,000 bobtails in service nationwide, their incident rate of three incidents over seven years could reasonably be extrapolated to a rate of nine incidents over the same period for the industry as a whole. This is the same number of incidents that Petitioners assumed in calculating a one in 35,000,000 incident rate in their Petition for Reconsideration. Even if it is assumed that the industry-wide incident rate is higher than the incident rate Petitioners have experienced, the overall incident rate at issue would still be extraordinarily low.³ In fact, as discussed in Petitioners' Petition for Reconsideration, the estimated incident rate

¹ It should be noted that Petitioners are not aware of any documented basis for this suggestion.

² In one of these instances, ignition did not occur and no injuries or property damage resulted. Petitioners also identified one instance in which the automatic excess flow feature functioned immediately upon separation of a hose during a bobtail delivery (no ignition, injuries, or damage occurred). This latter instance was not included in Petitioners' incident tally, because the operator attendance requirement at issue would provide a benefit only in an instance in which the automatic excess flow feature fails to function as intended.

³ It should further be noted that this low risk reflects the risk that a release will occur, whether or not there is any ignition of the gas released. See Footnote 2.

suggested by the available data would have to be assumed to be *five times higher* before it would even approach the incident rate of passenger deaths per enplanement for the U.S. commercial aviation transportation system. Petitioners do not believe that this incremental risk is of sufficient magnitude to justify the high costs that compliance with the operator attendance requirement of the emergency rule would entail. Petitioners accordingly urge RSPA to take prompt and favorable action on their pending Petition by modifying the operator attendance requirement of the emergency rule appropriately.

Please let me know if you have any questions or if additional information would be helpful.

Sincerely,

Walter B. McCormick, Jr.

cc: Alan I. Roberts
Docket No. RSPA-97-2133 (HM-225)

March 31, 1997

Mr. Alan I. Roberts,
Associate Administrator for Hazardous
Materials Safety, Department of
Transportation, 400 7th Street, SW, Mail
Code: DHM-1, Washington, DC 20590.

Dear Mr. Roberts: This letter responds to your request for specific suggested regulatory language designed to address the concerns raised in the Petition of Ferrellgas, L.P., Suburban Propane, L.P., AmeriGas Propane L.P., Agway Petroleum Corporation, and Cornerstone Propane Partners, L.P., (collectively "Petitioners") for reconsideration of RSPA's emergency interim final rule published at 62 FR 7638 (February 19, 1997).

We did not suggest specific regulatory language in our Petition for Reconsideration because we believe that our concerns could appropriately be addressed through a variety of different changes in regulatory language. For example, Petitioners would fully support adoption of the regulatory language suggested on page 2, footnote 1 of the Petition for Reconsideration filed with respect to the same emergency rule by the National Propane Gas Association. Alternatively, Petitioners would be satisfied if new Section 171.5(a)(1)(iii) were amended to read as follows:

"In addition to the attendance requirements in § 177.834(i) of this subchapter, the person who attends the unloading of a cargo tank vehicle must, except as necessary to facilitate the unloading of product or to enable that person to monitor the receiving tank, remain within an arm's reach of a remote means of automatic closure (emergency shut-down device) of the internal self-closing stop valve."

If neither of these suggested regulatory amendments is acceptable to the Agency, Petitioners would be satisfied with any alternative regulatory amendment that would reasonably meet their needs as articulated in their Petition for Reconsideration. It should be emphasized, however, that Petitioners' need for relief is most urgent. As the attached documents demonstrate, local authorities are already beginning to enforce the

requirements of the emergency rule at issue, a factor that is exacerbating the already impossible problems Petitioners face under that rule. Accordingly, we urge RSPA to provide appropriate relief in some form as quickly as possible.

As we have discussed, Petitioners would appreciate the opportunity to meet with the Agency to discuss their Petition, to provide supplementary information, and to discuss any questions or concerns you or your staff may have. In the interim, we hope that this clarification of the relief we seek is useful.

Thank you for the personal attention you have paid to this important matter.

Sincerely,

Barton Day,

Counsel for Petitioners Ferrellgas, L.P.,
Suburban Propane, L.P., AmeriGas Propane
L.P., Agway Petroleum Corporation, and
Cornerstone Propane Partners, L.P.

Attachment

March 21, 1997

The Honorable Dharmendra K. Sharma,
Administrator, Research and Special
Programs Administration, U.S.
Department of Transportation, 400 7th
Street, S.W., Room 8410, Washington,
DC 20590.

Dear Administrator Sharma: Enclosed pursuant to 49 CFR 106.35 is a Petition for Reconsideration of the emergency interim final rule published at 62 FR 7638 (February 19, 1997). This petition is being filed on behalf of Ferrellgas, L.P., Suburban Propane, L.P., AmeriGas Propane L.P., Agway Petroleum Corporation, and Cornerstone Propane Partners, L.P., (collectively "Petitioners"). Petitioners are five of the eight largest propane service companies in the United States, and together they serve over 3,000,000 customers across all fifty states.

The emergency rule that is the subject of this Petition was promulgated in response to information suggesting that the excess flow control valve designs currently in use on specification MC 330, MC 331, and certain non-specification cargo tank vehicles used to transport propane may not satisfy the requirements of 49 CFR 178.337-11(a). As Petitioners understand it, the purpose of this emergency rule was to provide a safe alternative means of compliance that would allow continued operation of such vehicles on an interim basis while a long-term solution to this problem is identified and implemented. Unfortunately, it appears that modification of certain operator attendance provisions included in the emergency rule, is necessary in order for the rule to achieve its intended purpose. The basic problem is that immediate compliance with the operator attendance requirement of the emergency rule, as currently written, does not appear to be possible. In fact, it is reasonable to question whether full compliance with these interim requirements could realistically be expected much before the interim compliance period is scheduled to end, on August 15th 1997. In addition, it appears that these requirements would not be reasonable interim compliance measures even if they could be implemented relatively quickly.

Petitioners believe that prompt modification of these requirements is necessary to ensure that the requirements of the interim compliance option provided are reasonably achievable on an interim basis.

Petitioners appreciate the constructive manner in which RSPA has responded to the issues underlying the emergency rule, and look forward to working with your staff cooperatively in order to resolve the concerns raised in the Petition.

Sincerely,

Walter B. McCormick, Jr.

Enclosure

cc: Judith S. Kaleta, Chief Counsel, Alan I. Roberts, Associate Administrator for Hazardous Materials Safety, Docket No. RSPA-97-2133 (HM-225)

**United States Department of Transportation
Research and Special Programs
Administration Before the Administrator**

**In Re: Hazardous Materials: Cargo Tank
Motor Vehicles in Liquefied Compressed Gas
Service; Interim Final Rule**

62 FR 7638 (February 19, 1997)

[Docket No. RSPA-97-2133 (HM-225)]

**Petition of Ferrellgas, L.P., Suburban
Propane, L.P., Amerigas Propane, L.P.,
Agway Petroleum Corporation and
Cornerstone Propane Partners, L.P. for
Reconsideration of RSPA's February 19,
1997 Interim Final Rule**

Pursuant to 49 CFR 106.35, Ferrellgas, L.P., Suburban Propane, L.P., AmeriGas Propane L.P., Agway Petroleum Corporation, and Cornerstone Propane Partners, L.P., (collectively "Petitioners") hereby petition for reconsideration of the emergency interim final rule published at 62 FR 7638 (February 19, 1997). The emergency rule was promulgated in response to information suggesting that the excess flow control valve designs currently in use on specification MC 330, MC 331, and certain non-specification cargo tank vehicles used to transport propane may not satisfy the requirements of 49 CFR 178.337-11(a). The purpose of the emergency rule, as explained at RSPA's March 4, 1997 Workshop concerning the rule, was to provide a safe alternative means of compliance that would allow continued operation of such vehicles on an interim basis while a long-term solution to this problem is identified and implemented. Petitioners appreciate the Agency's prompt efforts to achieve this critical objective, and support most of the requirements of the interim compliance option provided under the emergency rule. Unfortunately, however, the interim compliance option RSPA has provided includes new operator attendance requirements that are unreasonable, impracticable, and are not in the public interest. In fact, it appears that immediate compliance with these requirements is impossible, and that there is some basis to question whether efforts to comply might do more to increase than to decrease the overall risks associated with propane delivery, especially in the short term.

To adequately protect the public interest, Petitioners urge RSPA to take immediate action to modify the new operator attendance

requirements of its interim final rule so as to provide a reasonable and practicable interim means of compliance for operators of the cargo tank vehicles at issue. Such action is necessary because, although automatic systems that should satisfy RSPA's expectations under 49 CFR 178.337-11(a) are already under development, there appears to be no immediate way for the propane industry to comply either with the requirements of the interim final rule or with the requirements of 49 CFR 178.337-11 as RSPA interprets them. As RSPA itself has recognized, unachievable regulatory requirements for propane delivery are unacceptable because any interruptions in propane service would expose members of the public to "unacceptable threats to their safety and economic interests."⁴ Such requirements are particularly inappropriate in this case, because there is no evidence of any safety crisis that would justify them. To the contrary, the conditions of concern to RSPA have existed continuously over many years—and over the course of hundreds of millions of propane deliveries—apparently without any significant pattern of problems having occurred. In fact, based on the information cited by the Agency itself, it seems clear that the incremental risk at issue is extraordinarily low. It is therefore imperative that some reasonably practicable interim means of compliance be provided for the propane industry. It is also important to ensure that this interim means of compliance will provide positive safety benefits.

Introduction

Petitioners are the first, second, third, fifth, and eighth largest propane service companies in the United States. Together they provide service to some 3,039,000 customers in all fifty states. Petitioners operate approximately 690 transports and 5,950 bulk trucks (bobtails) of the type that are the subject of the emergency rule at issue.

Petitioners understand RSPA's concern over the suggestion that the excess flow control valves currently in use on such vehicles may not satisfy the requirements of 49 CFR 178.337-11. Petitioners are committed to the highest level of safety in the conduct of their business, and would like to work in partnership with RSPA to address this concern. As announced at RSPA's March 4th Workshop, it appears that at least one automatic system that should satisfy RSPA's expectations has already been devised,⁵ and Petitioners are aware that other such systems are also currently under development. The problem is that it will take a significant amount of time to more fully test such systems, to get them into commercial production, and to retrofit existing vehicles. Until this process can be completed, a reasonable option for interim compliance must be available.

Since the emergency rule was published, Petitioners have made diligent efforts to understand and implement the requirements

of the interim compliance option RSPA provided.

Specifically, Petitioners have augmented their safety procedures and operator training, and are in the process of testing potential engineering options both for interim and long-term compliance. Unfortunately, it appears that immediate compliance with the new vehicle attendance requirements of this option is not possible, and that longer-term compliance would not be reasonable. Because the emergency rule provides neither a grace period for compliance nor any reasonable means by which Petitioners can achieve compliance in the near future, it leaves Petitioners in an impossible position from which they require immediate relief. Accordingly, Petitioners urge RSPA to act immediately to modify the vehicle attendance requirements of its emergency rule as necessary to provide a reasonably practicable interim compliance option that will, if implemented, provide positive safety benefits.

Discussion

I. It Is Imperative That RSPA Provide a Reasonable and Practicable Compliance Option for the Propane Industry

A. Continued Propane Service Is Vital to the Public

Millions of Americans are dependent on propane for their basic energy needs. Consequently, as RSPA has acknowledged, any interruptions in propane service would expose the public to "unacceptable threats to their safety and economic interests."⁶ To protect the public interest, it is therefore vital to ensure that propane service companies such as Petitioners have some practicable and lawful means of continuing their operations.

B. The Risks at Issue Do Not Justify Stringent Interim Regulation

RSPA's concern is essentially that excess flow control features on specification MC 330, MC 331 and certain non-specification cargo tank vehicles used to transport propane or other liquid compressed gases may not function effectively under all operating conditions. This concern is based primarily upon one confirmed incident (the Sanford incident), although the Agency does suggest that nine other incidents (all involving bobtails) may have occurred over the past seven years.⁷ At the March 4th Workshop, RSPA officials indicated that it does not receive reports of all incidents that occur, and suggested that additional incidents involving the failure of excess flow control devices may in fact have occurred.

Although this information is troubling, it is important to recognize that it is indicative of only an extremely low risk. In fact, if the suggestion that nine bobtail incidents occurred over a seven year period is accepted at face value, this would suggest that the risk

⁴ Preliminary Regulatory Evaluation, Docket HM-225, Cargo Tank Motor Vehicles in Liquefied Compressed Gas Service (February 1997) at p. 6.

⁵ A copy of the announcement issued by A-B Products, Inc. on March 3, 1997 is provided as an attachment to this Petition.

⁶ Preliminary Regulatory Evaluation, Docket HM-225, Cargo Tank Motor Vehicles in Liquefied Compressed Gas Service (February 1997) at p. 6.

⁷ See Preliminary Regulatory Evaluation at 1. Petitioners note that no documentation concerning these alleged incidents is included in the administrative record.

of an incident involving failure of an excess flow control device during a bobtail delivery is in the range of one in 35 million.⁸ Even if five times this number of incidents had actually occurred, the risk of any such incident during a residential propane delivery would still be significantly lower than the risk of a commercial airline passenger being killed in an air crash on any single flight.⁹ While even one accident is too many, these are, by any reasonable assessment, very low risks indeed.

Certainly these risks are too low to justify interim regulatory controls that will impose harsh compliance burdens on the propane industry.

II. The Emergency Rule Fails To Provide Any Reasonable and Practicable Compliance Option for the Propane Industry

A. Immediate Compliance With the Alternative Compliance Option Provided in the Emergency Rule Is Impossible

The alternative compliance option provided in the emergency rule imposes a number of specific requirements. Several of these—including certain inspection and testing requirements—are practicable requirements that provide concrete safety benefits. Petitioners concern is with a new operator attendance requirement that effectively requires that the operator “have an unobstructed view of the cargo delivery lines, and be within an arm’s reach of a means for closure of the internal self-closing stop valve or other device that will stop the discharge of product from the cargo tank.” 62 FR at 7643 col. 3. RSPA acknowledges that “this may require two operator attendants on a cargo tank motor vehicle or the use of a lanyard, electro-mechanical, or other device or system to remotely stop the flow of product.” *Id.* In fact, it appears that compliance with this requirement would always require such measures. One of the principal practical problems is that, in almost all cases, at least some of the controls that must be activated in the unloading of product are located out of reach of the controls for the emergency shut-off system.¹⁰ Another is that

⁸ Assuming nine billion gallons of propane delivered by bobtail annually, with an average of 200 gallons per delivery, it is estimated that there were 315 million bobtail deliveries during the seven year period at issue. If nine incidents are assumed to have occurred in the course of these 315 million deliveries, the corresponding incident rate is approximately 0.029 incidents per million deliveries, for an average of less than one incident in 35 million deliveries.

⁹ Even if the kind of bobtail incidents at issue occurred at five times the rate of the reported incidents RSPA has referred to, the incident rate would amount to only about 0.14 incidents per million bobtail deliveries. By contrast, although commercial aviation accident rates fluctuate from year to year, the passenger fatality rate for the “extremely safe” U.S. commercial aviation transportation system has ranged from 0.18 to approximately 0.4 fatalities per million enplanements. National Transportation Safety Board, *A Review of Flightcrew-Involved Major Accidents of U.S. Carriers, 1978 Through 1990* (NTSB/SS-94/01) (January 1994) at 1-2.

¹⁰ In the case of bobtails, the flow of gas is initiated from a control located on the end of the product delivery hose. Because bobtails, for safety purposes, are typically located more than 10 feet

operators must at least periodically step away from their vehicles during unloading operations to ensure, for safety purposes, that the receiving tank is not being overfilled or overpressurized. Immediate compliance with this new attendance requirement is impossible because none of the options for compliance—multiple attendants, a lanyard, or some other remote shut-off system—can be implemented in less than a matter of months.

The problem with the multiple attendant option is that Petitioners do not have enough qualified personnel to send multiple attendants out on deliveries. To the contrary, Petitioners—being well-run businesses—do not have substantially more operators than they need to serve their customers. Nor can Petitioners substantially increase the workload of the operators they do have; indeed, regulations limiting hours of service for drivers would prohibit them from doing so. To provide additional operators, Petitioners would therefore have to hire them. If Petitioners were to hire one new employee for each of their approximately 6,600 vehicles, this would amount to more than a 40% increase in the total work force of these companies.¹¹ Hiring programs of this magnitude would obviously take months to complete, even under the best of circumstances. Applicants would need to be solicited and appropriately screened. Once new operators are hired, they would then need to be appropriately trained before they could be put into the field. In short, this option is completely unworkable as a near-term, interim compliance option.

Putting aside the question of whether lanyards would function effectively—which Petitioners contend they would not—the inescapable problem is that they cannot be deployed quickly. All of the propane cargo vehicles Petitioners operate are already equipped with emergency shut-off (ESO) systems. However, Petitioners believe that substantially all of their ESO controls would have to be modified or repositioned before lanyard systems could be used effectively. In most cases the necessary work would need to be performed by a truck fabricator, and it is estimated that the work would take a number of months to complete. The specific mechanical problems are as follows.

Although propane cargo vehicles have ESOs of various different designs, their basic function is to trip the integral closing mechanism for an internal stop valve. The manually-controlled actuating device for the ESO system is normally positioned towards the front of the vehicle where it is more accessible to the operator in the event that a release of product occurs towards the rear of the vehicle where most of the pumping controls and operating valves are located. These ESO systems are normally operated by a lever or push-button controller mounted to

from the point of product transfer, this control must always be activated from a position that is out of reach of the controls located on the truck. In the case of transports, the clutch and power take off controls necessary for operation of the unloading pumps are located in the vehicle cab, generally out of reach of the emergency shut-off system controls, out of sight of the loading lines, or both.

¹¹ Together, Petitioners have a total of approximately 15,100 employees.

the truck frame behind the driver side of the cab. Where levers are used, they are relatively small, and may be mounted in either a vertical or horizontal position. Attachment of a lanyard to this type of controller would require a series of pulleys so as to direct the force of the pull in the proper direction to actuate the system. On a great many vehicles, however, the controllers are of a push-button design that cannot readily be operated by the tug of a lanyard. These systems would need to be jerry-rigged in some manner or replaced with a lever type controller before a lanyard system could be attached at all.

Petitioners are actively testing electro-mechanical remote emergency shut-off systems, but are not aware of any remote control system that has yet been demonstrated to be fully effective for use in propane cargo vehicles. The principal engineering challenges are to ensure that such a device could reliably transmit signals through metal structures, that it would not itself provide a source of ignition in the event of a propane release, and that it would be compatible with the variety of ESO configurations currently in bobtail service. Even if such devices prove effective, however, it would clearly take a considerable amount of time to install them in all of the propane cargo vehicles. In the end, it could potentially take as long to develop, test, and implement this “interim” solution as it would to implement an appropriate final solution. In any event, it does not appear that immediate compliance with the alternative compliance option provided in the emergency rule is possible on any basis at all.

B. Multiple Operator and Remote Activation Options Are Not Reasonable as Interim Compliance Measures

Even if the multiple operator or remote activation options could be implemented substantially before the end of the interim compliance period, Petitioners do not believe that they would represent reasonable interim compliance measures. The basic problem is that either option would impose high costs without providing any commensurate safety benefit.

The multiple employee option would effectively require a very large but temporary expansion in the work force of propane service companies. The costs of recruiting, screening, training, compensating, and then ultimately discharging this large number of excess employees would be very high. Petitioners estimate that these costs could exceed \$165,000,000.00 just for Petitioners alone, assuming one new employee for each of Petitioners’ 6,600 vehicles.¹² At the same time, for several reasons, the safety benefits of this approach can be expected to be limited at best. First, as already indicated, the risk to be addressed under this approach is extraordinarily low in the first place, and that risk would be reduced even further by implementation of the other requirements of the interim rule, which Petitioners believe would be highly effective in addressing the risk of uncontrolled propane releases during

¹² Conservatively assuming a total cost of \$25,000.00 per employee for recruiting costs, salary, training, and benefits.

lading. Second, it would take considerable time to implement this compliance option. As a result, the window of time during which this interim compliance option could effectively provide any safety benefit would be limited. Finally, it should be recognized that it will be difficult to recruit high-quality employees for interim jobs, and that the job itself—standing ready to respond to an event that is extraordinarily unlikely to occur—is not one that should be expected to induce a high level of performance. Accordingly, it appears that interim employees might for practical purposes provide very little safety benefit at all.

As already discussed, the remote activation option would require physical modification of transport vehicles. Assuming that an appropriate remote activation system can indeed be made available at all, significant costs would need to be incurred to purchase and install the necessary equipment. Petitioners estimate that even a relatively low-cost system of the garage-door-opener variety, if available, could not be put to use in Petitioners' 6,600 existing vehicles for less than about \$2,300,000.00. Again, however, for several reasons, this substantial cost might provide little practical safety benefit. As already indicated, the risk addressed would be extremely small, particularly in view of the other requirements of the emergency rule. This option would also take considerable time to implement—perhaps nearly as long as an ultimate solution—and might therefore provide interim protection for only a very limited period. In addition, it is not clear that such devices would be capable of operating reliably under real-world conditions, particularly in cold weather and where obstructions—especially metallic obstructions such as sheds, vehicles, or fences—might interfere with signal transmission. Accordingly, it is not clear that such devices, if put to use, would provide substantial safety benefits.

C. Requirements To Employ Multiple Operators or Remote Activation Options Could Potentially Do More To Increase Than To Decrease the Overall Risks Associated With Propane Delivery

In imposing safety regulation, it is important at a minimum to ensure that the rules adopted will do no harm. In particular, it is important to ensure that efforts to address one risk do not effectively increase other risks. Petitioners believe that there is legitimate basis to question whether efforts to comply with the operator attendance requirements of the emergency rule might actually do more to increase than to decrease the overall risks associated with propane delivery, particularly in the short term. Indeed, it appears that those requirements—in attempting to minimize the risks in the event that an uncontrolled release of product occurs during unloading—could potentially increase the overall likelihood that product releases will occur. The basis for this concern is as follows.

Based on their operational experience, Petitioners believe that human error—particularly human error in the overfilling of a customer tank during a bobtail delivery—represents the greatest risk of a product release associated with unloading operations.¹³ For two reasons, the new operator attendance requirements of the emergency rule could potentially increase these risks.

The first concern arises with respect to operators that attempt to achieve compliance through the use of interim employees. As already indicated, this option would essentially require that large numbers of new operators be hired, trained, and put into service as quickly as possible. Petitioners have thorough training programs, and believe that these programs are effective in minimizing the risk of human error in the field. Nevertheless, if there is a way to increase the risk of human error, the compulsion to immediately hire and deploy large numbers of new interim employees—on what amounts to an emergency basis—would appear to be it. Petitioners do not believe that this incremental risk would be substantial, and would obviously work as hard as possible to ensure that it is not. Nevertheless, Petitioners believe that the magnitude of this small incremental risk could very well exceed the magnitude of any incremental risk reduction the interim employee option would provide, particularly over the short term.

The second concern arises with respect to propane marketers that attempt to comply without interim employees. The basic concern is that the operator attendance requirement of the emergency rule would frequently have the effect of anchoring operators in positions from which they will be unable to effectively monitor the tank they are filling during bobtail deliveries. This is a critical concern, because monitoring of the customer tank through use of a manual fixed liquid level valve located on the tank is by far the most effective way to ensure that uncontrolled product releases will not occur due to the overfilling of customer tanks. To the extent that operators are inhibited from monitoring the customer tank by the need to keep a lanyard taut, to avoid signal interference from a shed, or for any other

¹³ Overfilling is an issue of concern because propane tanks are pressure vessels containing fluid that expands and contracts in response to ambient temperature variations. In order to ensure that propane is not released as a result of fluid expansion, it is necessary to maintain an adequate vapor space within the tank. For this reason, propane tanks are ordinarily filled only to 80 percent of their full volume. In the event a tank is filled beyond the allowable limit, there is a risk that propane may subsequently be released at some point (often after the operator has left the customer site). If the tank is filled to its full volumetric capacity, a resulting release of product will occur during the unloading process itself. In either case, the safety concerns involved are serious.

reason, the risks associated with the overfilling of customer tanks is incrementally increased. Again, Petitioners believe that the magnitude of even a very small incremental increase in this risk could well exceed the magnitude of the safety benefit provided by the new operator attendance requirements.

III. Modified Attendance Requirements Would Provide A Practicable Basis for Interim Compliance That Would Provide at Least Equivalent Safety Benefits

As already indicated, Petitioners generally support the interim requirements of the emergency rule, specifically the interim requirements for pressure testing of new or modified hose assemblies and for visual inspection of hoses and hose fittings prior to unloading. These interim requirements directly address the risk of catastrophic hose failure—which is the principal risk at issue—and should provide positive safety benefits.

Petitioners believe that all its concerns regarding the operator attendance requirements of the emergency rule can be addressed—without any real sacrifice in safety—if they are modified to provide additional flexibility for two purposes. First, the operator should be given the flexibility to step away from the ESO system as necessary to conduct the unloading operations.¹⁴ Second, the operator should be allowed the flexibility to step away from the ESO system in order to monitor the customer tank. This approach would effectively ensure that the operator will remain within arms' reach of the ESO system to the extent it is reasonable to do so, but would eliminate the need to attempt to deploy multiple operators or remote activation systems on an interim basis. As modified, the provision would provide a practicable interim means of compliance that provides a level of safety that—for practical purposes—is likely to be at least equivalent to the level of safety the rule now provides.

Conclusion

For the reasons set forth herein, Petitioners urge RSPA to take immediate action to modify the vehicle attendance requirements of its emergency rule as proposed in this Petition to provide a reasonably practicable interim compliance option that will, if implemented, provide actual safety benefits.

Respectfully submitted,

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¹⁴ This modification would by itself be sufficient to address Petitioners' concerns with respect to propane transports.