



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, D.C. 20590

AUG 04 2016

Ms. Tory Foster  
1703 McInnis Drive  
Waynesboro, MS 39967

Ref. No. 16-0060

Dear Ms. Foster:

This responds to your April 13, 2016 email and conversation with a member of my staff requesting clarification of the requirements for the transport of storage containers for liquefied petroleum gas for permanent installation on consumer premises in accordance with the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask how a 120 gallon portable tank filled to 80% of its capacity is to be loaded and secured on a transport vehicle for delivery to a consumer premises under § 173.315. In your letter you note that § 173.315(j)(3) permits storage containers of less than 125 gallons to be shipped when charged with liquefied petroleum gas in compliance with DOT filling density, but do not specify how to load or secure the tank.

The HMR currently do not prescribe requirements for the transport of a storage container for liquefied petroleum gas charged in excess of 5 % of its capacity for permanent installation on consumer premises. Upon further review, it is the opinion of this Office that § 173.315(j)(3) should also apply the conditions required in § 173.315(j)(1). Thus, we recommend that a storage container of less than 125 gallons water capacity be shipped for permanent installation on consumer premises when charged with liquefied petroleum gas charged in conformance with the DOT filling density and shipped in accordance with the other conditions of § 173.315(j)(1).

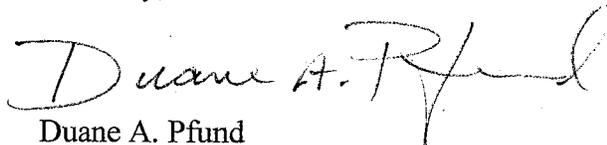
In final rule HM-245 (76 FR 5483; February 1, 2011), PHMSA incorporated the provisions of special permit (SP) 13341 into the HMR by revising § 173.315(j)(2). The final rule only intended to provide provisions for the one-way transport of liquefied petroleum gas in consumer storage containers from a consumer premises to the container owner's nearest facility. However, in this final rule, PHMSA inadvertently created a new § 173.315(j)(3) that was intended to be § 173.315(j)(1)(iv).

We did not intend to authorize the transport of storage containers of less than 125 gallons of liquefied petroleum gas without additional operational conditions included in § 173.315(j)(1),

and we thank you for bringing this matter to our attention. PHMSA will revise this language in a future rulemaking.

I hope this answers your inquiry. If you need additional assistance, please contact the Standards and Rulemaking Division at (202) 366-8553.

Sincerely,

A handwritten signature in black ink that reads "Duane A. Pfund". The signature is written in a cursive style with a large, looped initial "D".

Duane A. Pfund  
International Standards Coordinator  
Standards and Rulemaking Division

Leary  
§ 173.315 (J)  
Packaging Specs.  
16-0060

**Dodd, Alice (PHMSA)**

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**From:** Geller, Shelby CTR (PHMSA)  
**Sent:** Wednesday, April 13, 2016 2:23 PM  
**To:** Hazmat Interps  
**Subject:** FW: 173.315 (J)  
**Attachments:** Tory Foster.pdf; NFPA 58 HANDBOOK 9.6.2.2.pdf

Dear Shante and Alice,

Forwarded is a request for a formal letter of interpretation. I spoke with Ms Foster.

Thanks,  
Shelby

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**From:** TORY FREEMAN [<mailto:TORY1@BELLSOUTH.NET>]  
**Sent:** Wednesday, April 13, 2016 11:51 AM  
**To:** PHMSA HM InfoCenter  
**Subject:** 173.315 (J)

PLEASE PROVIDE WRITTEN CLARIFICATION

Thank you,  
Tory Foster  
601-735-4521

# Tory Foster

1703 McInnis Dr.  
Waynesboro, MS 39367

U.S. DOT  
PHMSA Office of Hazardous Materials Standards  
Attn: PHH-10  
East Building  
1200 New Jersey Avenue, SE.  
Washington, DC 20590-0001

April 13, 2016

To whom it may concern,

Requesting written clarification of Hazardous Material Regulations HMR;

173.315 (j) in this scenario:

If "MY PROPANE COMPANY" is delivering 120 gallon dot cylinder or ASME propane tank filled to 80% (100 gallons of liquefied petroleum) to my house.

How is that tank to be loaded and secured on the truck or trailer that is delivering it?

173.315(j) (1) references 5% or less in my opinion this would not apply as the above tank has more than 5%  
173.315(j) (2) reference more than 5% but is only in returning to "MY Propane Company" not delivering to my house.  
173.315(j) (3) gives permission to deliver 100 gallons in 120 gallon tank but does not tell us how to load or secure it?

NFPA 58 2011 Edition was when it was changed

9.6.2.1 applies to 125 gallon or more

9.6.2.2-- does this apply to 120 gallon tanks?

Where a container is transported with more LP-Gas than 5 percent of its water capacity in liquid form **all of the following conditions shall apply:**

- (1) The container shall not be filled beyond the filling limit of Section 7.4
- (2) Transportation shall be permitted only to move containers from a stationary or temporary installation to a bulk plant**
- (3) Valves and fitting shall be protected by a method approved by the authority having jurisdiction to minimize the possibility of damage.
- (4) Lifting Lugs shall not be used to move these containers.

NFPA58 2011 HANDBOOK SHOWS A PICTURE IN EXHIBIT 9.15 WITH THE TANK NOT RESTING ON ITS LEGS.

DOES THAT REFERENCE US BACK TO 173.315 (J) (2) (VII)? (the tank in the picture is larger than 120 gallons)

**Please advise how "MY PROPANE COMPANY" should load and secure a 120 dot cylinder or ASME gallon liquefied petroleum tank filled to 80% capacity for delivery to my home-- not removal from my home.**

Sincerely,

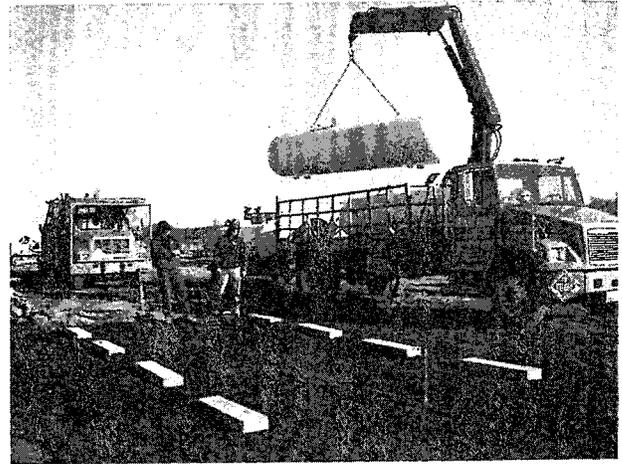
Tory Foster

See attachments

sumers' premises. Occasionally, it may be necessary to move the container with more than 5 percent LP-Gas — for example, when the liquid evacuation valve does not function and the container cannot be pumped out at its installed site, or where it would be safer to transfer the contents at the propane dealer's facility rather than in a residential neighborhood. A container may be transported subject to the limitations specified by the authority having jurisdiction, which is usually DOT.

See Exhibit 9.13 for an example of a way to load ASME stationary storage containers for transport. Lifting by the lifting lugs only is limited to new tanks or to tanks that are filled to less than 5 percent of their capacity. See 9.6.2.2, including the commentary, for restrictions on the use of lifting lugs for tanks filled to more than 5 percent.

**EXHIBIT 9.13** Saddle Trailer Used to Transport Stationary Container. (Courtesy of H&H Gas)



## 9.6.2 Transportation of Containers.

**9.6.2.1** ASME containers of 125 gal (0.5 m<sup>3</sup>) or more water capacity shall contain no more than 5 percent of their water capacity in liquid form during transportation.

**9.6.2.2** Where a container is transported with more LP-Gas than 5 percent of its water capacity in a liquid form, all of the following conditions apply:

- (1) The maximum filling does not exceed the limit of Section 7.4.
- (2) Transportation shall be permitted only to move containers from a stationary or temporary installation to a bulk plant.
- (3) Valves and fittings shall be protected by a method approved by the authority having jurisdiction to minimize the possibility of damage.
- (4) Lifting lugs shall not be used to move these containers.

The limit of 5 percent water capacity for transportation of containers of 125 gal (0.5 m<sup>3</sup>) or more is a practical one. It recognizes that the gauges on containers cannot accurately measure contents below 5 percent and that 5 percent is a small quantity of propane.

Special Permit 13341 was issued by DOT to permit the transportation of ASME containers of 500 gal (1890 L) water capacity or less containing more than 5 percent liquid, from the customer's premises to the tank owner's nearest bulk plant. The special permit also requires adherence to several operational requirements that are stated in the permit description. The special permit can be viewed at [http://hazmat.dot.gov/sp\\_app/special\\_permits/exe\\_13000.htm#e13000](http://hazmat.dot.gov/sp_app/special_permits/exe_13000.htm#e13000). This permit may be granted to companies that wish to make use of its provi-

sions, as party status is permitted. Information about applying for this permit is also available at this web page.

Note that the use of the lifting lugs to lift a container containing more than 5 percent liquid for and during transportation is prohibited. The lifting lugs are not fabricated to lift the weight of more than the container and 5 percent of its capacity.

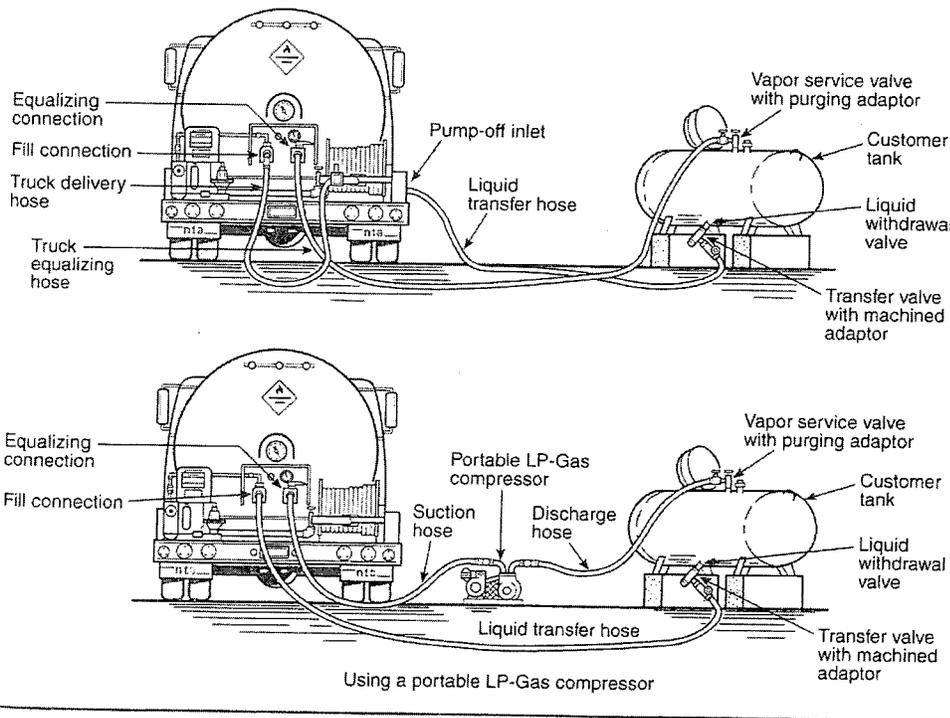
The safe transportation of containers with more than 5 percent of their maximum capacity is summarized as follows:

- Transportation is permitted only to a bulk plant.
- Valve and fitting protection is required to prevent damage during transportation.
- Authorization for transportation is required.
- Lifting lugs are not to be used.

The requirements in 9.6.2.2 recognize that it is sometimes necessary to move a container in order to safely empty it and that the equipment usually available at a bulk plant can expedite the procedure, enhancing safety. In order to remove LP-Gas from a container, the actuated liquid withdrawal excess-flow valve is used. (See Exhibit 9.14.) ASME containers built prior to 1961 do not have an actuated liquid withdrawal excess-flow valve and may not have any bottom fitting. ASME containers constructed after 1961 may have an actuated liquid withdrawal excess-flow valve that is inoperable. In such a case, at the installed location, the only options are as follows:

- Roll the container on its side to withdraw liquid through the vapor withdrawal valve.
- Hold open the double-check filler valve using an unloading adapter.

When either of the above methods is used, no excess-flow protection is in place because it is not required on vapor withdrawal connections. To perform these operations as safely as possible, it is often preferable to do so away from a populated location and where the bulk



**EXHIBIT 9.14** Removing Liquid from Container to Comply with 5 Percent Provision. (Courtesy of National Propane Gas Association)

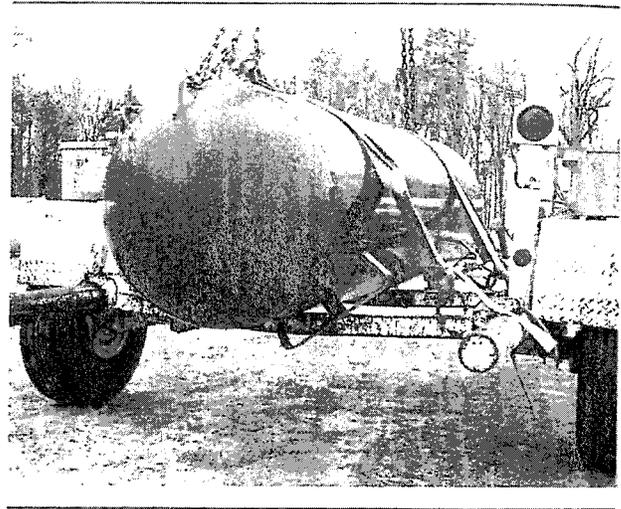
plant has personnel better equipped to handle the procedure. In order to move the container back to the bulk plant, Special Permit 13341 was issued by DOT. See the commentary following 9.6.2.2 for more details on the special permit.

Containers smaller than 125 gal (0.5 m<sup>3</sup>) are not required to be drained prior to shipping for the following two reasons:

1. They are not required to be equipped with a connection for liquid evacuation, so they can be difficult to drain.
2. Their weight, even when full, is not so great that they cannot be handled safely.

Exhibit 9.15 shows a container ready for transportation. The tank is supported by a cross-member and not by the tank lifting lugs. Also, the tank is securely strapped to the trailer and the chains to the lifting lugs have slack to keep from overloading the lugs.

**EXHIBIT 9.15** Boom Trailer Used to Transport a Stationary Container. (Courtesy of Richard Fredenburg, North Carolina Department of Agriculture and Consumer Services)



**9.6.2.3** Containers shall be installed to minimize movement relative to each other or to the carrying vehicle while in transit, giving consideration to vehicular operation.

**9.6.2.4** Valves, regulators, and other container appurtenances shall be protected against physical damage during transportation.

**9.6.2.5** Pressure relief valves shall be in direct communication with the vapor space of the container.

## 9.7 Parking and Garaging Vehicles Used to Carry LP-Gas Cargo

The regulations for parking cargo tank vehicles and cylinder delivery trucks cover the following:

- Outdoor parking
- Parking in public buildings
- Parking in buildings owned by the vehicle's operator
- Parking in buildings used to repair vehicles

To facilitate easier understanding of Section 9.7, see the flow charts contained in Exhibits 9.16 and 9.17.