



U.S. Department of Transportation
**Pipeline and Hazardous Materials
Safety Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

AUG 21 2013

Mr. John Anderson
Airgas SAFECOR
P.O. Box 20067
Cheyenne, WY 82003

Ref. No.: 13-0004

Dear Mr. Anderson:

This is in response to your December 20, 2012 email and conversation with a member of my staff concerning visual inspection requirements under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you cite a potential conflict between a letter this office issued in 2011 (Ref. No 10-0077) and Compressed Gas Association Publication C-6 Standards for Visual Inspection of Compressed Gas Cylinders (CGA C-6). Cylinders that conform to the requirements of § 180.209(g) are exempt from the hydrostatic test by virtue of their exclusive use in certain noncorrosive gas service. However, these cylinders must be given a complete visual inspection in accordance with CGA C-6. In interpretation 10-0077, we stated that no measurement of the tare weight is required for the external visual inspection. The letter went on to say that when the cylinder exhibits corrosion, the cylinder must be further examined for condemnation.

This guidance provided in 10-0077 is correct. If corrosion is identified during the external visual inspection then the cylinder may be evaluated using the four general criteria in Section 3.2.1.1 of CGA C-6 to determine if the cylinder should be condemned. Section 3.2.1.1, paragraph (1), in part, states that the cylinder must be condemned when the tare weight is less than 90% of the original stamped tare weight. Additionally, even if a cylinder satisfies the tare weight criteria of 3.2.1.1 paragraph 1, it must still be further examined by measuring the wall thickness in accordance with 3.2.1.1 paragraphs (2), (3) or (4) for the types of corrosion that has been identified on the cylinder. However, if as a result of a visual inspection the cylinder does not exhibit corrosion and it meets the requirements for exclusive use in § 180.209(g), the cylinder will meet the four general criteria in 3.2.1.1. Thus verification of the tare weight is not necessary.

I hope this information is helpful. If you have further questions, please do not hesitate to contact this office.

Sincerely,

Delmer Billings
Senior Regulatory Advisor
Standards and Rulemaking Division



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue SE
Washington, DC 20590

SEP 14 2011

Mr. Fred A. Nachman
President
Thunderbird Cylinder
4209 E. University Drive
Phoenix, AZ 85034-7315

Ref. No.: 10-0077

Dear Mr. Nachman:

This responds to your letter requesting clarification of the requirements concerning the tare weight of liquefied petroleum gas (LPG) cylinders under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180).

- Q1. Does a low pressure (LPG) cylinder being visually inspected need to have its valve/PRD removed to verify there is no liquid inside it that would result in improper tare weight verification?
- A1. No. A cylinder conforming to §180.209 used exclusively in LPG service may be given an external visual inspection in lieu of a hydrostatic test. No measurement of the tare weight is required for the external visual inspection. When the cylinder exhibits corrosion, the cylinder must be further examined for condemnation. The cylinder must be examined by measuring tare weight in accordance with CGA C-6, 5.2.1.1 (1). The cylinder must be empty. The tare weight is measured with the valve/PRD connected. Cylinders exempt from tare weight measurement must be examined by measuring wall thickness in accordance with CGA C-6, 5.2.1.1 (2), (3), or (4).
- Q2. At the time of requalification, should the pressure relief device (PRD) be changed?
- A2. No. There is no regulatory requirement to change the PRD at the time of requalification. Pressure relief devices must be tested for leaks before a filled cylinder is shipped in accordance with §173.301(a)(2) and (3).
- Q3. Should it even be an option to hydrostatically test or steam clean LPG cylinders when ethyl mercaptan exposed to water/moisture is corrosive?

- A3. Cylinders containing LPG in accordance with §180.209(g) may be given an external visual inspection in lieu of a hydrostatic pressure test. This would avoid adding moisture to the cylinder. If steam cleaning is used, it is the responsibility of the filler to make sure the cylinder is dry before filling with a hazardous material, if moisture is dangerous to the cylinder (§173.301(d)).

I hope this information is helpful. If we can be of further assistance, please contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Ben Supko", with a long horizontal flourish extending to the right.

Ben Supko
Chief, Standards Development Branch
Standards and Rulemaking Division

Drakeford, Carolyn (PHMSA)

Leary
\$173.301
3180.209(g)
Cylinders
13-0004

From: Foster, Glenn (PHMSA)
Sent: Thursday, December 20, 2012 12:22 PM
To: Drakeford, Carolyn (PHMSA)
Cc: Benedict, Robert (PHMSA); Betts, Charles (PHMSA); Billings, Delmer (PHMSA); Foster, Glenn (PHMSA); Kelley, Shane (PHMSA); Pfund, Duane (PHMSA); Supko, Ben (PHMSA)
Subject: FW: Request for further clarification on Letter of Interpretation 10-0077
Attachments: Letter of Interpretation Tare Weight.pdf

Carolyn,

Please process the attached as a request for letter of interpretation.

Thanks,
Glenn

From: John Anderson (SAFECOR) [<mailto:John.Anderson.SAFECOR@Airgas.com>]
Sent: Thursday, December 20, 2012 12:20 PM
To: Foster, Glenn (PHMSA)
Subject: Request for further clarification on Letter of Interpretation 10-0077

Good morning Mr. Foster

Request for further clarification on Letter of Interpretation 10-0077

On the attached Letter of Interpretation (10-0077) under answer A1 it states "No measurement of the tare weight is required for the external visual inspection". The Letter goes on to state that the cylinder must be examined by measuring tare weight in accordance with C-6.

The 1993 edition of CGA C-6 is the edition that is incorporated by reference and section 3.2.1.1 paragraph 1 states that the cylinder must be condemned when the original tare weight is less than 90% of the original stamped tare weight. It goes on to state that if the tare weight is less than 95% of the original stamped tare weight the cylinder can not be visually inspected it must be tested by water jacket or direct expansion.

Can you please clarify this conflict between the Letter of Interpretation and what is stated in CGA C-6? C-6 clearly states that the tare weight measurement/accuracy is part of the cylinder requalification process

Thank you,

John Anderson
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