



COMPRESSED GAS ASSOCIATION

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May 1, 2009

Mr. Edward Mazzullo
 Director, Office of Hazardous Materials Standards
 U.S. Department of Transportation
 Pipeline and Hazardous Materials Safety Administration
 1200 New Jersey Ave SE, East Bldg, Floor 2
 Washington, DC 20590

DEPT OF TRANSPORTATION
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Dear Mr. Mazzullo,

The Compressed Gas Association (CGA), founded in 1913, is dedicated to the development and promotion of safety standards and safe practices in the industrial and medical gas industry. CGA represents over 125 member companies in all facets of the industry – manufacturers, distributors, suppliers, and transporters of gases, cryogenic liquids, and related products and services. Through a committee system, CGA develops technical specifications, safety standards, and training and educational materials, and works with government agencies to formulate responsible regulations and standards and to promote compliance with these regulations and standards.

The CGA identified the need for additions to 49 CFR 178.35(f) and we respectfully request your consideration of the following.

Addition to 49 CFR 178.35(f):

- (7) Cylinders manufactured after January 1, 2010, manufactured in accordance with specifications DOT 4B, DOT 4BA, DOT 4BW, and DOT 4E, shall be identified with the tare weight (TW) or mass weight (MW). Additionally, the water capacity (WC) of the cylinder shall be permanently marked.
- (a) The TW marking shall be the actual weight of the fully assembled cylinder, including the valve(s) and other permanently affixed items on the cylinder. The removable protective cap(s) or cover(s) (when present) shall not be included in the cylinder TW. The TW marking for cylinders up to and including 25 pounds (11.34 kg) shall represent the cylinder TW at time of manufacture with a lower tolerance of 3 percent and an upper tolerance of 1 percent. The TW marking for cylinders larger than 25 pounds (11.34 kg) shall represent the cylinder TW at time of manufacture with a lower tolerance of 2 percent and an upper tolerance of 1 percent.
- (b) The MW marking shall be the actual weight of the fully assembled cylinder, excluding valve(s) and removable protective cap(s) or cover(s). The MW marking for cylinders up to and including 25 pounds (11.34 kg) shall represent the cylinder MW at time of manufacture with a lower tolerance of 3 percent and an upper tolerance of 1 percent. The MW marking for cylinders larger than 25 pounds (11.34 kg) shall represent the cylinder MW at time of manufacture with a lower tolerance of 2 percent and an upper tolerance of 1 percent.

- (c) The marked WC of the cylinder shall represent the minimum capacity of the cylinder. For cylinders up to and including 25 pounds (11.34 kg) WC, the tolerance shall be minus 1 percent with no requirement for an upper tolerance. For cylinders larger than 25 pounds (11.34 kg) WC, the tolerance shall be minus 0.5 percent with no requirement for an upper tolerance.

Rationale:

At present, DOT does not require tare weight, mass weight, or water capacity markings on cylinders. NFPA-58, *LP Gas Code*, states that cylinders used for liquefied petroleum gases shall be marked with the tare weight and water capacity, yet gives no guidance to the accuracy of these markings or who is to provide the marking.

Cylinder tare weights on portable cylinders have and continue to be a moving target. This is caused by valve replacement, cylinder refurbishing/repainting, and any change in the cylinder service. Accurate tare weights, mass weight, and water capacities identified at the time of manufacture are required for safe filling and transportation of these cylinders.

To accurately fill a cylinder by weight, the tare weight and the water capacity of the cylinder must be known. Overstating the tare weight of a cylinder will cause the cylinder to become overfilled (Example; actual TW is 9# but the stamped TW is 10# will result in a 1# overfill). Overstating the water capacity of a cylinder can also cause the cylinder to be overfilled (Example; [Propane w/42% WC filling density) actual WC 46# but the cylinder is stamped WC 50# will cause the cylinder to be overfilled by approximately 2#).

Some newly constructed cylinders are shipped from factories with no valves based on customer requests. The cylinder manufacturer cannot be responsible for an accurate tare weight of a cylinder if the valve is not installed by the cylinder manufacturer. Identifying the accurate mass weight of the cylinder at the time of manufacture will parallel the Canadian requirements (The committee should be asked to identify the specific clause, perhaps even include the actual language). Permitting a MW marking will relieve the cylinder manufacturers of potentially speculating what valve or valves may be installed in the cylinder at the time of fill.

The limitations on the accuracy of the tare weight, mass weight, and water capacity are based on scale accuracy, mathematical determination of safe cylinder filling limits and compliance with the requirements of 49 CFR.

Using 25# (11.34 kg) as a breakpoint, this proposal is based on the DOT precedent using 25# (11.34 kg) as a breakpoint for the marking of cylinders (Example; 49 CFR 178.51(n)(6)).

Thank you for your consideration of this petition. If you have any questions, please feel free to contact me at 703-788-2711 or mmeteyer@cganet.com.

Sincerely,



Marc J. Meteyer
President and CEO