U.S. Department
of Transportation

Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Ave., SE
Washington, DC 20590

OCT 17 2008

Mr. William Barlen
Barlen and Associates, Inc.
24 Gettysburg Court
Allentown, NJ 08510

Ref: 08-0251

Dear Mr. Barlen:

This is in reference to your September 14, 2008 letter requesting a clarification of the requirement in § 173.301(a)(3) of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) that: "Pressure relief devices must be tested for leaks before a filled cylinder is shipped from the cylinder filling plant." Specifically, you ask whether a manufacturer's certification report stating a cylinder has been tested and is being shipped to the customer "leak free" may be used to satisfy the requirement in § 173.301(a)(3).

The answer is no. Each time that a cylinder is filled, its pressure relief devices must be tested for leaks before the cylinder is shipped from the cylinder filling plant. The requirement in § 173.301(a)(3) must be read in conjunction with the separate requirement in the preceding paragraph that: "Before each filling of a cylinder, the person filling the cylinder must visually inspect the outside of the cylinder. A cylinder that has a crack or a leaking or defective pressure relief device, or bears evidence of physical abuse, fire, or heat damage, or detrimental rusting or corrosion, may not be filled and offered for transportation." 49 CFR § 173.301(a)(2).

Both of these requirements apply to the person who fills a cylinder and offers the filled cylinder for transportation. They are distinct from the separate requirements in Subpart C of Part 178 of the HMR that a cylinder manufacturer must test all completed cylinders for leakage and to reject any cylinder that leaks. See, for example, § 178.36(m), governing DOT specification 3A and 3AX seamless steel cylinders, that "All spun cylinders and plugged cylinders must be tested for leakage by gas or air pressure . . ." Accordingly, each specified test or inspection must be performed in the manner prescribed by the HMR and with acceptable results.

Therefore, as stated, after a cylinder is filled, it must be tested for leaks before being offered for transportation. The person who offers the cylinder for transportation is responsible for

ensuring this requirement has been met. That person may not rely on a prior certification that, at the time of manufacture (which may be many years earlier), the cylinder was tested and certified to be "leak free."

I trust this adequately addresses your concerns. Please contact us if we can be of further assistance.

Sincerely,

Hattie L. Mitchell
Chief, Regulatory Review and Reinvention
Office of Hazardous Materials Standards

Mitchell
§ 173.301(a)(3)
Cylinders
08-0251

BARLEN and ASSOCIATES, Inc.
Consulting to the Compressed Gas Industry

- *Government Safety Regulations (OSHA)*
- *Department of Transportation (US and Canada) Hazardous Material Regulations*
- *Cylinder & Valve Testing, Chemical Analysis, UT, Electron Microscope, etc.*
- *Forensic Investigation Consulting*

Hattie L. Mitchell
Chief, Regulatory Review and Reinvention
Office of Hazardous Materials Standards
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, D.C. 20590

14 September 2008

Dear Ms. Mitchell,

I am currently representing a client who manufactures compressed gas shipping containers to DOT Standards and Specifications. When they are delivered to the customer the customer is given a test report that includes a certification that the unit being delivered has been tested and is being shipped to the customer "leak free".

The "new" container in question was filled by the customer with a hazardous material who then subsequently shipped it to a US Port for shipment to Europe. At the port a port employee noticed that a relief device was leaking, i.e. the leak had enough of a velocity that it could be heard at some distance from the container.

The reason for this letter is that I have stated to the oter side of this case that under:

> **49 CFR 173.301 – General requirements for shipment of compressed gases and other hazardous materials in cylinders, UN pressure receptacles and spherical pressure vessels.**
> **(a) (3) Pressure relief devices must be tested for leaks before a filled cylinder is shipped from the cylinder filling plant.**

I.e., that it is the filler's responsibility to check for leaks **AFTER** the container is filled and that they cannot legally ship a container based only on the container manufacturer's leak test.

The opposing side maintains (as paraphrased to remove the name of the companies involved) that:

> **"Such an argument is tenuous because "the container manufacturing company" provided leak test certifications when it delivered the trailers to the "the company that filled the container". Therefore "the company that filled the container" justifiably relied on those certifications and put the trailers into service. "The container manufacturing company" will have a difficult time convincing a jury that "the company that filled the container" should not have relied on "the container manufacturing company's" written certification that leak tests had been performed and that the trailers had passed those tests."**

The DOT tube leaked at the relief device and the company that filled the container admits they never leaked checked the tubes after filling and before offering the containers for shipment by common carrier.

As I stated, the opposing side maintains that "**Pressure relief devices must be tested for leaks before a filled cylinder is shipped from the cylinder filling plant"** does not mean "after being filled. Your response would be helpful to me.

Sincerely,
William Barlen
William Barlen

24 Gettysburg Court, Allentown N.J. -
OFFICE - 609-223-0019, CELL - 609-802-4627, e-mail - Barlen@optonline.net