



U.S. Department  
of Transportation

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

MAY 21 2007

**Pipeline and Hazardous  
Materials Safety Administration**

Mr. Paul Graves  
Line Pressures, Inc.  
3900 South Lipan Street  
Englewood, Colorado 80110-4422

Ref. No.: 07-0028

Dear Mr. Graves:

This is in response to your January 19, 2007 letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) concerning the transportation of refrigerated liquefied gases. Your questions are paraphrased and answered below.

- Q1. Does the HMR, as amended on December 29, 2006 (71 FR 78627), require orientation markings to be placed on a DOT 3-series cylinder containing Nitrous oxide? Would a DOT 4L cylinder containing Nitrogen, refrigerated liquid be considered an "open cryogenic receptacle"?
- A1. The answer is no to both questions. Section 172.312(a) requires each non-bulk package having inner packagings containing liquid hazardous materials, "single packaging fitted with vents, or an open cryogenic receptacle intended for the transport of refrigerated liquefied gases to be packed with closures upward, and legibly marked, with package orientation markings on two opposite vertical sides of the package. DOT 3 cylinders are not cryogenic receptacles and are not authorized for refrigerated liquid. A DOT 4L cylinder is a closed cryogenic receptacle.
- Q2. Is a pressure relief device considered to be a vent?
- A2. The answer is no. The term "vent" as used in § 172.312(a) applies to non-bulk packages other than cylinders.
- Q3. If "20 cylinders" and an additional "20 cylinders" of a different size containing the same hazardous material are offered into transportation, would it be correct to enter the total quantity of hazardous materials on the shipping paper as "40 cylinders"?
- A3. The answer is yes. Section 172.202(a)(5) requires the total quantity of hazardous materials covered by the description to be indicated on a shipping paper (by mass or volume, or by activity for Class 7 (radioactive) materials and must include an indication of the applicable unit of measurement for example, "200 kgs." or "50 L." However, this requirement is not applicable to cylinders, provided some indication of the total quantity is shown, such as "40 cylinders" as used in your example above.

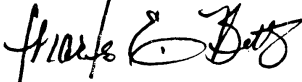


070028

171.8  
172.202  
172.312(a)

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

Sincerely,

A handwritten signature in black ink, appearing to read "Charles E. Betts". The signature is written in a cursive style with a large, prominent initial "C".

Charles E. Betts  
Senior Transportation Specialist  
Office of Hazardous Materials Standards

# **LINEPRESSURE**

January 19, 2007

*Herrera*  
*§ 171.8*  
*§ 172.202*  
*§ 172.312*  
*Shipping Papers / Markings*  
*07-0028*

United States Department of Transportation  
Pipeline and Hazardous Materials Safety Administration  
Mr. Charles Betts, Sr. Transportation Regulations Specialist  
Office of Hazardous Materials Standards, PHH-10  
400 7<sup>th</sup> Street S.W.  
Washington, DC 20590-0001

RE: Docket No. PHMSA-06-25476 (HM-215I) Final Rule  
Federal Register publication dated December 29, 2006

Dear Mr. Betts:

Line Pressure, Inc. submits this request for clarification in regards to certain revisions to the Hazardous Materials Regulations (HMR) published in the Federal Register on December 29, 2006.

- 1) Section 172.312 of 49 CFR, paragraph (a) is amended to read "requiring orientation markings on single packagings fitted with vents and on open cryogenic receptacles intended for the transport of refrigerated liquefied gases." Currently, the terms "pressure relief device" and "vent" are used in 49CFR § 173.316(a)(7) in regards to relieving pressure of a cryogenic liquid in cylinders. My concern is for the definition of the term "VENT". As amended, does the new wording for 49CFR § 172.312 require orientation markings on DOT-3 series cylinders containing Nitrous Oxide? As example, a 3AA-2015 cylinder filled with 50 pounds of Nitrous Oxide product would be considered a single non-bulk package containing liquid hazardous material fitted with an appropriate pressure relief device. Does this pressure relief device qualify as a vent?
- 2) Line Pressure, Inc. is interpreting the meaning of an "open cryogenic receptacle" as referring to small laboratory containers typically used for the storage or transportation of Nitrogen, Refrigerated Liquid. These containers are usually contain 5, 10, 20 or 25 liters or product and contain a small cap (lid) with a protrusion which simply rests on top the opening of the container. Upon consulting with other professional medical gas suppliers and manufacturers, one referred to a DOT-4L series cylinder as an open cryogenic receptacle because of the valves located on the top.
- 3) Section 172.202(a)(5)(iii)(B) of 49 CFR excepts cylinders "provided some indication of the total quantity is shown, for example, 10 cylinders." Line Pressure interprets this to mean if 20 cylinders of one size and 20 cylinders of a different size are loaded on a transport vehicle which, contain the same hazardous material, the proper entry on the shipping paper would be to show 40 cylinders for the proper shipping name describing the hazardous material being transported. Would this entry be correct in this situation?

Thank you in advance for your time and response to our clarification request. We support the continued advances being made for the safe transportation of hazardous materials in commerce.

  
Paul Graves  
Line Pressure, Inc.

**Analgesia Sedation/Respiratory Care  
Medical Gas/Specialty/Cryogenic  
Precision Delivery Systems**

3900 South Lipan Street  
Englewood, Colorado 80110-4422  
303-742-0202  
800-783-1GAS