



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

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

MAY 22 2013

Mr. David B. Sonnemann
Manager, Transport Regulations and Fleet Safety
Praxair Distribution Inc.
39 Old Ridgebury Road
Danbury, CT 06810-5113

Reference No.: 12-0249

Dear Mr. Sonnemann:

This is in response to your November 06, 2012 email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). You ask several questions concerning the definition of an overpack and marking and labeling requirements for cylinders in overpacks. Your questions are paraphrased and answered below:

- Q1) You request clarification as to whether the packaging configuration in the photo provided (Figure 1) is a unit load device. Figure 1 consists of a deck plate and one or more railings to which cylinders are secured through the use of strapping. You believe this configuration is not an overpack because (1) it is not an enclosure, (2) it meets the definition of a freight container in § 171.8 except for having a volume less than 64 cubic feet and (3) it is intended primarily for containment of packages in unit form.
- A1) The answer to your question is no. The packaging configuration in your photo (Figure 1) does not meet the definition of a freight container or a unit load device. However, this packaging configuration does meet the defining criteria for an overpack.

As defined in § 171.8, a *unit load device* is “any type of freight container, aircraft container, aircraft pallet with a net, or aircraft pallet with a net over an igloo.” And a *freight container* means “a reusable container having a volume of 64 cubic feet or more, designed and constructed to permit being lifted with its contents intact and intended primarily for containment of [smaller] packages (in unit form) during transportation.” Since the packaging configuration in your photo (Figure 1) does not meet the definition of a freight container, or any of the other package types described in the definition of unit load device, this packaging configuration cannot be categorized as a unit load device.

In contrast, the definition for overpack in § 171.8, provides several examples of overpacks. One such example is “one or more packages placed or stacked onto a load board such as a pallet and secured by strapping, shrink wrapping, stretch wrapping or other suitable means.” This definition corresponds with the packaging configuration described in your letter.

- Q2) You request clarification on the requirement to display the “OVERPACK” mark when an overpack contains multiple packages with different specifications.
- A2) Section 173.25(a)(4) requires a shipper to mark the word “OVERPACK” on an overpack when specification packagings are required if the specification markings on the inside packages are not visible. Unlike the marking and labeling requirements in § 173.25(a)(2), this provision does not exempt the overpack from being marked “OVERPACK” when a marking representative of each inner package is visible; rather, the marking on every inner package must be visible. However, since specification markings are unlikely to be visible on the innermost packagings within an overpack and there is no basis to distinguish the requirements in § 173.25(a)(2) and (a)(4), it is reasonable for the “OVERPACK” mark to be required, unless specification markings representative of each type included in the overpack are visible, as stated in Letter of Interpretation 10-0149. Therefore, PHMSA anticipates addressing this requirement in a future rulemaking.
- Q3) You request acknowledgement that the labels shown in your photo (Figure 2) are visible as required by § 173.25(a)(2).
- A3) The only visible label in Figure 2 is a neck ring label described in CGA Pamphlet C-7, Appendix A. As provided by § 172.400a, a cylinder containing a Division 2.1, 2.2 or 2.3 material that is not overpacked is authorized to be marked in accordance with CGA Pamphlet C-7, Appendix A without further DOT labeling. However, since the cylinders in Figure 2 are overpacked that exception does not apply and a hazard warning label must be applied to each cylinder.

Additionally, the overpack must display appropriate marks and labels for each hazardous material contained in the overpack unless marks and labels representative of each hazardous material in the overpack are visible, as required in § 173.25(a)(2). The portions of the cylinders shown in Figure 2 (i.e. the upper portions) do not display any visible markings or labels, so markings and labels are required on the overpack. However, if unobscured markings and labels, representing each hazardous material in the overpack, are visible on the lower portions of the cylinders that are not depicted, that is acceptable. (See 49 C.F.R. Part 172, subparts D and E.)

- Q4) You request acknowledgement that a protective mesh attachment shown in your photo (Figure 3) is allowable for the purpose of safeguarding labels against abrasion and damage during transport. You state that the labels are not obscured by markings or attachments when using the protective mesh.
- A4) The mesh attachment pictured in the photo (Figure 3) you submitted does not appear to be consistent with § 172.406(f). The requirements for label visibility in § 172.406(f) specify that labels “must be clearly visible and may not be obscured by markings or attachments.” The intent of this requirement is to ensure that hazard communication labels clearly illustrate the hazards presented within the package, and that the view of the required label is not obstructed by any additional markings or packaging accessories that may reduce the

effectiveness of the required hazard communication. As pictured, the mesh attachment in the photo you provided reduces the effectiveness of the label to convey the hazards represented within the package by partially obscuring the text on the markings and labels, making them difficult to decipher.

I trust this satisfies your inquiry. Please contact us if we can be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Delmer Billings". The signature is written in a cursive style with a large initial "D" and "B".

Delmer Billings
Senior Regulatory Advisor
Standards and Rulemaking Division



Praxair Distribution Inc.

Wiener
\$ 173.25
\$ 171.8
Overparks/Cylinders
Praxair Distribution Inc. 12-0249
39 Old Ridgebury Road
Danbury, CT 06810-5113
Tel (203) 837-2294
Fax (203) 837-2503

November 6, 2012

Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

ATTN: Mr. Delmer Billings

Re: Request for Interpretation; Section §173.25

Dear Mr. Billings:

Praxair Distribution Inc. ("PDI") hereby requests interpretation of various sections of the Hazardous Materials Regulations (HMR) that define the term overpack and stipulate the requirements for marking an overpack. In addition, PDI seeks clarification on the visibility of labels affixed to a cylinder. The specific regulations and the interpretation for which PDI seeks clarification are §171.8, §173.25, and PHMSA Letter of Interpretation #10-0149.

- I. PDI specifically requests clarification as to whether or not the transport device depicted in Figure 1 is a unit load device as PDI believes. The device in Figure 1 consists of a deck plate and one or more railings to which cylinders are secured and is used for more efficient transport of cylinders.



Figure 1.

PDI believes that the transport device pictured in Figure 1 is a unit load device and not an overpack because it is not an enclosure and meets the definition of the term *freight container* except for being smaller in volume than sixty-four (64) cubic feet. As defined in §171.8, a unit load device is any type of freight container designed and constructed to permit being lifted with its contents intact and intended primarily for containment of packages (in unit form) during transportation. The device pictured in Figure 1, is intended primarily for containment of packages (in unit form) during transportation and meets the other defining criteria as well. On the basis that the transport device is a unit load device and not an overpack, section 173.25, *Authorized packagings and overpacks* does not apply.

- II. PDI requests clarification of PHMSA's interpretation found in Letter of Interpretation 10-0149 requiring the "OVERPACK marking" unless the overpack contains multiple packages with identical package specification marking provided package specification markings representative of each package specification contained in the overpack are visible from the outside. While this requirement is understood, it creates the unintended consequence requiring marking of most overpacks containing multiple cylinders because cylinders consolidated in an overpack typically have different package specification markings

This interpretation means that an overpack used to consolidate cylinders containing a gas of the same proper shipping name and strapped to a wooden pallet may have to be marked "OVERPACK" because the cylinders may be aluminum, steel, or nickel cylinders having different package specification marking. Figure 2 illustrates a TC cylinder and a DOT specification cylinder containing the same product.

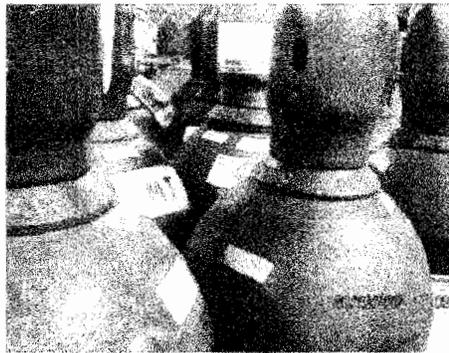


Figure 2.

- III. PDI seeks acknowledgement and clarification that labels shown in Figure 2 are visible as required by §173.25(a)(2) for cylinders provided with a mesh covering to protect labels and marking and contained in an overpack. As shown in Figure 3 below, PDI applies protective mesh over DOT required labels to guard against abrasion and other damage to labels while a cylinder is in transportation. As shown in Figure 3, the labels affixed to the cylinder are visible and not obscured by markings or attachments. In fact, words on the label and the CGA C-7 marking are readable through the mesh.



Figure 3.

On the basis of the information presented in items I, II, and III above, PDI hereby requests PHMSA issue an interpretation and a further clarification to Letter of Interpretation 10-0149 to address the three issues for defining PDI's transport device as a unit load device and answering questions raised in items II and III of this letter.

Thank you, for your time cooperation in this matter.

Respectfully submitted,

David B. Sonnemann
Manager, Transport Regulations and Fleet Safety



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

COPY FOR YOUR
INFORMATION

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

SEP 3 2010

Mr. Mike Ritchie
Hazardous Materials Specialist
Minnesota Department of Transportation
395 John Ireland Boulevard, Mail Stop 460
St. Paul, MN 55155

Ref. No. 10-0149

Dear Mr. Ritchie:

This responds to your July 16, 2010 letter requesting clarification of the overpack marking and labeling requirements under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask if clear shrink wrapped pallets must be marked on the outside with the required package markings (*e.g.*, proper shipping name, identification number, orientation arrows, and "OVERPACK") when the markings on individual packages are not visible because of the package configuration, but markings and labels representative of each hazardous material are visible from the outside of the overpack. Your areas of concern are restated and answered as follows:

Labels and Proper Shipping Name/Identification Number Markings

Section 173.25(a)(2) requires the overpack to be marked with the proper shipping name and identification number, and labeled for each hazardous material contained therein, unless markings and labels representative of each hazardous material in the overpack are visible. For example, an overpack need not be marked and labeled if the markings (*i.e.*, proper shipping name and identification number) and labels on an individual package inside the overpack are not visible but the same markings (*i.e.*, proper shipping name and identification number) and labels representative of that package are clearly visible from the outside on another package contained in that overpack.

Orientation Arrow Marking

Section 173.25(a)(3) requires an overpack containing packages subject to the orientation arrow marking requirements of § 172.312 to be marked with orientation arrows on two opposite vertical sides of the overpack. This requirement is in addition to the orientation arrows displayed on the individual packages.

"OVERPACK" Marking

Section 173.25(a)(4) requires an overpack to be marked "OVERPACK" when specification packagings are required, unless specification markings on the inside packages are visible. The "OVERPACK" marking is not required if the overpack contains multiple packages with identical package specification markings provided package specification markings representative of each package specification contained in the overpack are visible from the outside.

I hope this information is helpful. If you have further questions, please contact this office.

Sincerely,

A handwritten signature in black ink that reads "Ben Supko". The signature is written in a cursive style with a long, sweeping underline.

Ben Supko
Acting Chief, Standards Development
Office of Hazardous Materials Standards

Drakeford, Carolyn (PHMSA)

Eichenlaub
§ 173.25
§ 173.312

From: Betts, Charles (PHMSA)
Sent: Friday, July 16, 2010 2:56 PM
To: Drakeford, Carolyn (PHMSA)
Subject: FW: Marking of overpacks

Overpacks
10-0149

Please log this in as a new request for interpretation.

Thanks,
Charles

From: Ritchie, Mike (DOT) [mailto:Michael.Ritchie@state.mn.us]
Sent: Friday, July 16, 2010 2:29 PM
To: Betts, Charles (PHMSA)
Subject: Marking of overpacks

July 16, 2010

Charles Betts
Chief, Standards Development
Office of Hazardous Materials Standards
USDOT/ PHMSA
1200 New Jersey Avenue
Washington, DC 20590

Re: Marking, Labeling and Display of Package Specifications on Overpacks

Dear Mr. Betts,

49 CFR 173.25 requires overpacks to be marked with the proper shipping name and identification number, and the authorized labels, for each hazardous material contained in the overpack, unless those labels and marks are visible on the packages. Paragraph (a) (4) of that section requires the overpack to be marked with the word OVERPACK when the hazardous material is required to be in specification packaging unless the specification markings on the inside packages are visible.

The most common type of overpack our safety investigators encounter while doing Hazardous Materials Package Inspection Program (HMPIP) inspections are shrink wrapped pallets. Many are not marked OVERPACK. These pallets often contain different types of packages, for example drums and boxes on the same pallet, and may contain several different hazardous materials. Labels and marking on packages loaded in the center of the pallet are not visible because they are covered by packages on the edge or top of the pallet. Many non-bulk packages display the required hazmat marking and labels on a different surface than the printed or embossed specification marking required by §178.3.

Question: If an overpack contains packages requiring specification marks, must all specification marks on each package be visible or is a representative sample of each different specification mark acceptable?

Question: If packages displaying orientation arrows as required in §172.312 are in an overpack, and those orientation arrows are visible on the packages on two opposite sides of the overpack, must additional orientation arrows be added the outside of the overpack to comply with §173.25 (a) (3)?

Yours truly,

Michael Ritchie
Hazardous Materials Specialist
Minnesota Department of Transportation
Office of Freight & Commercial Vehicle Operations
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St. Paul, MN 55155-1899
(651) 366-3697