

of Transportation

Pipeline and **Hazardous Materials Safety Administration**

OCT 28 2005

Mr. Paul Goodwin Transportation Manager NASA-White Sands Test Facility 12600 NASA Road Las Cruces, NM 88012

Dear Mr. Goodwin:

This responds to your July 28, 2005 letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask if a closed transport vehicle containing ten 650 pound cylinders of methylhydrazine, a Hazard Zone A poisonous by inhalation (PIH) material, must be placarded with the POISON INHALATION HAZARD placard provided in § 172.555. In addition, you ask if the transport vehicle must be marked in accordance with §§ 172.313.

As provided in § 172.504(e), a transport vehicle containing any amount of Division 6.1, Hazard Zone A or B material (i.e., methylhydrazine) must display the placards depicted in § 172.555 on each side and each end. In addition, because your transport vehicle contains more than 2,205 pounds of methylhydrazine, it must be marked on each side and each end with "UN 1244" (§ 172.313(c)). The identification number must be displayed on orange panels or placards as specified in § 172.332, or on white square-on-point configurations as prescribed in § 172.336(b).

Also note that § 172.313(a) requires the words "Inhalation Hazard" to be marked in association with required labels, placards, and shipping name when appropriate. This requirement applies to the package itself. Therefore, the words "Inhalation Hazard" must be marked in association with the label on non-bulk packagings; bulk packaging such as a cargo tank or rail tank car must be marked with the words "Inhalation Hazard" in association with the placard on two opposing sides. When the words "Inhalation Hazard" appear on the label or placard, this marking is not required

I hope this information is helpful. Please contact us if you require additional assistance.

Sincerely,

John A. Gale

Chief. Standards Development

laterials Standards

400 Seventh Street, S.W.

Washington, D.C. 20590

Ref No.: 05-0189

050189

Supko \$172.504 \$172.655

Drakeford, Carolyn <PHMSA>

From: Gorsky, Susan < PHMSA >

Sent: Thursday, July 28, 2005 9:16 AM

To: Drakeford, Carolyn <PHMSA>

Could you put this into the interp system please? Thanks.

-----Original Message-----

Subject: FW: Placard problem

From: Paquet, Ryan <FMCSA>

Sent: Thursday, July 28, 2005 7:31 AM

To: Gorsky, Susan <PHMSA> **Subject:** FW: Placard problem

Susan, could you please have someone look at the following flood of emails and let me know what they make of it?

Thank you very much!

Ryan

----Original Message-----

From: Goodwin, Paul [mailto:pgoodwin@smtp3.wstf.nasa.gov]

Sent: Wednesday, July 27, 2005 5:53 PM **To:** Paquet, Ryan; Lynch, Tom <PHMSA>

Cc: ###Gary Lindsey (lindseyg@all-pak.com); ####Mike Brennan

Subject: FW: Placard problem

Lady and Gentlemen,

not to beat a dead horse BUT. I have been going round and round with several people in the aerospace and hazmat transportation community for months about a placarding interpretation that differs from what I have been taught and I trust your opinions so here is a scenario:

How would you placard Methylhydrazine for a non bulk shipment of 10 cylinders (650 lbs. a piece) in an enclosed van going from one place (Worcester, MA) directly to another place (Trenton, NJ).

I checked the DOT exemption to see if there was any relief from placarding regulations and there was not!

DOT has already stated his interpretation for another previous shipment of MMH as follows: "Because this material is a 6.1, Hazard Zone A (therefore found in Table 1 of 172.504) the transport vehicle must be placarded when any amount of the material is transported. As shown in Table 1, the placard required is found in 172.555. As you can see, this is a specific placard (see below, the words "Inhalation Hazard must be on the placard). Also, 172.516 (c) (7) states: "Affixed to a background of contrasting color, or must have a dotted or solid line outer border which contrasts with the background color (My opinion - Silver is not contrasting

Other people in the aerospace and hazmat transportation community, are citing 172.313 and or 172.332:

§172.313 Poisonous hazardous materials. In addition to any other markings required by this

7/28/2005

enough). "

subpart

c) A transport vehicle or freight container containing a material poisonous by inhalation in non-bulk packages shall be marked, on each side and each end as specified in § 172.332 or § 172.336, with the identification number specified for the hazardous material in the § 172.101 Table, subject to the following provisions and limitations:

1) The material is in Hazard Zone A or B;

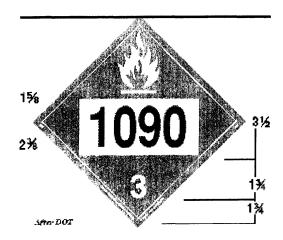
- 2) The transport vehicle or freight container is loaded at one facility with 1,000 kg (2,205 pounds) or more aggregate gross weight of the material in non-bulk packages marked with the same proper shipping name and identification number; and
- (3) If the transport vehicle or freight container contains more than one material meeting the provisions of this paragraph (c), it shall be marked with the identification number for one material, determined as follows:(i) For different materials in the same hazard zone, with the identification number of the material having the greatest aggregate gross weight; and (ii) For different materials in both Hazard Zones A and B, with the identification number for the Hazard Zone A material.

§172.332 Identification number markings.

- (a) <u>General.</u> When required by §§ 172.301, 172.302, 172.313, 172.326, 172.328, 172.330, or 172.331, identification number markings must be displayed on orange panels or placards as specified in this section, or on white square-on-point configurations as prescribed in § 172.336(b).
- (b) Orange panels. Display of an identification number on an orange panel shall be in conformance with the following:
- (1) The orange panel must be 160 mm (6.3 inches) high by 400 mm (15.7 inches) wide with a 15 mm (0.6 inches) black outer border. The identification number shall be displayed in 100 mm (3.9 inches) black Helvetica Medium numerals on the orange panel. Measurements may vary from those specified plus or minus 5 mm (0.2 inches).
- (2) The orange panel may be made of any durable material prescribed for placards in §172.519, and shall be of the orange color specified for labels or placards in appendix A to this part.
- (3) The name and hazard class of a material may be shown in the upper left border of the orange panel in letters not more than 18 points high.
- (4) Except for size and color, the orange panel and identification numbers shall be as illustrated for Liquefied petroleum gas:



- (c) <u>Placards</u>. Display of an identification number on a hazard warning placard shall be in conformance with the following: (1) The identification number shall be displayed across the center area of the placard in 88 mm (3.5 inches) black Alpine
- Gothic or Alternate Gothic No. 3 numerals on a white background 100 mm (3.9 inches) high and approximately 215 mm (8.5 inches) wide and may be outlined with a solid or dotted line border.
- (2) The top of the 100 mm (3.9 inches) high white background shall be approximately 40 mm (1.6 inches) above the placard horizontal center line.
- (3) An identification number may be displayed only on a placard corresponding to the primary hazard class of the hazardous material.
- (5) The name of the hazardous material and the hazard class may be shown in letters not more than 18 points high immediately within the upper border of the space on the placard bearing the identification number of the material.
- (6) If an identification number is placed over the word(s) on a placard, the word(s) should be substantially covered to maximize the effectiveness of the identification number.
- (d) Except for size and color, the display of an identification number on a placard shall be as illustrated for Acetone:



HELP?

Are there several ways to placard this shipment?
Should I think about sending this question onto Mr. Mazzullo @ US DOT Letters of Interpretation of the HMR?

thank you for your expertise and intellect;

Sincerely
Paul Goodwin, Transportation Manager
505-524-5781

From: Gallegos, Janie (DESC) [mailto:Janie.Gallegos@dla.mil]

Sent: Tuesday, July 19, 2005 10:37 AM

To: Goodwin, Paul

Cc: Mokry, Catherine (DESC) **Subject:** FW: Placard problem

Good Morning Paul,

Thank you for bringing your concerns to my attention and for providing the photos they were instrumental with our review of the regulations. #### informed me that they had offered the orange panel but that the carrier stated they had the placards covered.

In reviewing rule 49 CFR 172.332(a) it identifies three options to display the identification number markings via orange panel, placards or on white square-on-point configuration. The carrier opted to use the placard method. Please see 49 CFR 172.332 (c)(6) which also states,

"If an identification number is placed over the word(s) on a placard, the word (s) should be substantially covered to maximize the effectiveness of the identification number."

Therefore, the Black cross-bones on the top corner of the diamond and the 6 on the bottom corner identifies that the PIH placard IAW 172.555 was used and the rule 49 CFR 172.332 (c) (6) as stated above indicates that this is allowed. In discussing this matter with Arch we concluded that the norm would have been to use the orange panel; however, what the carrier opted to use is also an approved method.

In addition, 49 CFR 172.516 was reviewed and your comments have been noted regarding the visibility and display of placards. In conclusion, the placards were legible even though order of placement or color contrast may be questionable. I

hope you will continue to advise this office of any other potential discrepancies identified on any of our shipments. Your team support and efforts are greatly appreciated!

Thanks,

Janie G. Gallegos
Traffic Management Specialist
Defense Energy Support Center (DESC-MIP)
Missile Fuels CBU
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