



U.S. Department
of Transportation

1200 New Jersey Avenue SE
Washington, DC 20590

**Pipeline and Hazardous
Materials Safety
Administration**

SEP 15 2015

Ms. Robyn Kinsley
Director, Transportation
The Chlorine Institute
1300 Wilson Blvd., Suite 525
Arlington, VA 22209

Ref. No. 14-0230

Dear Ms. Kinsley:

This responds to your November 18, 2014 letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the securement of Intermediate Bulk Containers (IBCs). Your questions are paraphrased and answered as follows:

- Q1. In regard to § 177.834(a), how does PHMSA define “relative motion between packages”?
- A1. PHMSA does not define “relative motion between packages.” Under the HMR, § 177.834(a) requires any hazardous material (hazmat) package that is not permanently attached to a motor vehicle to be secured against shifting, including relative motion between packages, within the vehicle on which it is being transported under conditions normally incident to transportation. Conditions normally incident to transportation include vehicle starting, stopping, cornering, accident avoidance, and varied road conditions. Thus, the securement of hazmat packages requires that such packages do not shift when experiencing these conditions. It is the opinion of this Office that “shifting” would involve a change in the place or position of the package from the original place or position that it occupied when it was loaded onto the motor vehicle.

Section 393.100(c) of the Federal Motor Carrier Safety Regulations (FMCSR) is the general securement requirement for all types of cargo. It is a safety performance standard intended to prohibit shifting of cargo that would compromise the vehicle’s stability or maneuverability. The requirements in the HMR § 177.834(a) represent a higher standard of safety for packages containing hazardous materials, where securing the packages against motion is necessary to prevent damage to the packages themselves, ensure their integrity, and prevent a release of the contained material.

Q2. Does "relative motion between packages" mean "zero motion"?

A2. No. In terms of preventing motion of the package(s) during transportation, securement against shifting and relative motion between packages in accordance with § 177.834(a) requires that the package(s) be secured against shifting (see A1 above) as well as secured against relative motion to the greatest extent practicable.

I hope this answers your inquiry. If you need additional assistance, please contact this Office at 202-366-8553.

Sincerely,



Dirk Der Kinderen
Acting Chief, Standards Development Branch
Standards and Rulemaking Division

Dodd, Alice (PHMSA)

From: Ciccarone, Michael CTR (PHMSA)
Sent: Wednesday, November 19, 2014 1:43 PM
To: Hazmat Interps
Subject: FW: Requests for Interpretation
Attachments: 2014-10-18 - PHMSA Interpretation Request - CL2 TC PRD Tell-Tale.pdf; 2014-10-18 - PHMSA Interpretation Request - Package Securement.pdf

Boothe
177.8346)
393.100(c)
Packaging General
14-0230

Shante/Alice,

Please submit these for formal letters of interpretation. Note that there are two separate requests attached.

Thanks,

Mike

From: Robyn Kinsley [<mailto:rkinsley@CL2.com>]
Sent: Wednesday, November 19, 2014 11:30 AM
To: PHMSA HM InfoCenter
Subject: Requests for Interpretation

Please find attached two requests for interpretation from The Chlorine Institute. Please do not hesitate to contact me if you have any questions.

Regards,
Robyn Kinsley

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November 18, 2014

Office of Hazardous Materials Standards
Pipeline and Hazardous Materials Safety Administration
ATTN: PHH-10
US Department of Transportation
East Building
1200 New Jersey Ave., SE
Washington, DC 20590

RE: Request for Interpretation – Highway Package Securement

The Chlorine Institute (“CI” or the “Institute”) is a 193 member, not-for-profit trade association of chlorine producers worldwide, as well as chlorine packagers, distributors, users, and suppliers. The Institute’s North American Producer members account for more than 93 percent of the total chlorine production capacity of the U.S., Canada, and Mexico. The Institute’s mission chemicals, namely chlorine, sodium hydroxide and potassium hydroxide (hereafter referred to as “caustic”), hydrochloric acid and sodium hypochlorite, are used throughout North America’s economy and are crucial to the protection of public health.

Many of CI’s members transport the Class 8 corrosive products noted above in bulk by highway either in cargo tanks or intermodal bulk containers (or “IBCs”). Recently some questions have been raised with regard to transporting IBCs and, in particular, proper load securement of those packages. There appears to be inconsistent language between PHMSA’s 49 CFR 177.834(a) and FMCSA’s 49 CFR 393.100(c) on which our members would like clarification.

49 CFR 177.834(a) states:

*“Any package containing any hazardous material, not permanently attached to a motor vehicle, must be **secured against shifting, including relative motion between packages**, within the vehicle on which it is being transported, under conditions normally incident to transportation. Packages having valves or other fittings must be loaded in a manner to minimize the likelihood of damage during transportation.”*

49 CFR 393.100(c) states:

*“Prevention against shifting of load. Cargo must be contained, immobilized or secured in accordance with this subpart to **prevent shifting upon or within the vehicle to such an extent that the vehicle’s stability or maneuverability is adversely affected.**”*

The bolded and underlined phrases in the above regulations are what appear to be inconsistent. While the intent of §177.834(a) appears to not permit any shifting or movement of the packages, §393.100(c) appears to allow a minor amount of movement which does not affect the vehicle's stability. Because of the inconsistent language, the intent of the requirements for hazardous materials packages is uncertain. Specifically, it is uncertain what is meant by "relative motion between packages." Therefore, our question is:

How does PHMSA define "relative motion between packages?"

Does it mean enough motion between the packages that adversely affects the vehicle's stability and maneuverability (per FMCSA's rule)? If so, how is that quantified or measured? Are there guidelines on how to secure packages in order to prevent affecting the vehicle's stability and maneuverability?

Or, does it essentially mean zero motion/movement? If so, we recommend that PHMSA change the language in the regulations to state just that.

We have reviewed various interpretations and previous rulemakings PHMSA and FMCSA have issued in the past, but they do not seem to answer our specific questions. Our members are stewards of the safe handling of hazardous materials packages, and they strive to achieve compliance with the hazardous materials transportation regulations. Further clarification on this particular issue would greatly help that effort.

Thank you for your time on this matter.

Sincerely,



Robyn Kinsley
Director, Transportation