



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

1200 New Jersey Ave., S.E.
Washington, DC 20590

SEP 21 2011

Mr. Chris Backus
Packaging Engineer
CH2MHill
PO Box 1600 MSIN T3-11
Richland, WA 99354

Reference No.: 11-0206

Dear Mr. Backus:

This responds to your August 26, 2011 email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to tie-down attachment requirements for Type A packages in accordance with § 173.412(i). Your questions are paraphrased and answered as follows:

Q1. Are accident conditions for Type B packages contained in 10 CFR § 71.45 applicable to Type A packages?

A1. The answer to your question is no. The static force requirements in 10 CFR § 71.45 are prescribed for packages designed for the transport of radioactive materials indicated in 10 CFR § 71.0.

Q2. Are there load cases indicative of "accident conditions" for Type A packages?

A2. There are no specific static force requirements that structural component tie-down attachments of Type A packages must be capable of withstanding referenced in the HMR. A packaging tie-down system should be designed so that it fails first in the event of an accident and the failure should not result in a tear or hole in the package containment or a reduction in shielding. Section 173.412(i) requires that in the event of an accident a failure of the tie-down system must not impair the ability of the package to meet the other requirements of Subpart I in the same manner as a failure during normal transportation conditions.

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

Sincerely,

Delmer Billings
Senior Regulations Advisor
Standards and Rulemaking Division

Webb
§ 173.412 (i)
§ 173.415

Drakeford, Carolyn (PHMSA)

From: INFOCNTR (PHMSA)
Sent: Friday, August 26, 2011 4:42 PM
To: Drakeford, Carolyn (PHMSA)
Subject: FW: 173.412(i) interpretation requested

Packages
11-0206

Importance: High

Hi Carolyn,

We received the following request for a letter of interpretation.

Thanks,
Victoria

Victoria Lehman
Hazmat Information Center (HMIC)
<http://phmsa.dot.gov/hazmat/info-center>
(202) 366-1035

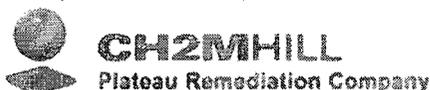
From: Backus, Christopher L [<mailto:Christopher.L.Backus@RL.gov>]
Sent: Friday, August 26, 2011 1:48 PM
To: INFOCNTR (PHMSA)
Subject: 173.412(i) interpretation requested
Importance: High

PHMSA Office of Hazardous Materials Safety:

We would like clarity on interpreting the language in 49CFR 173.412 (i) with respect to "accident conditions". It states the additional design requirements of Type A packages: "failure of any tie-down attachment" for both "normal and accident conditions". However, nowhere is there a discussion of what load requirements on the tiedown points are indicative of "accident conditions". Does this paragraph imply that the accident conditions as provided for Type B packages on tie-down devices be applied? In which case, 10CFR 71.45 tiedown loads should be applied per 173.415(b) or 173.415(c)? This indicates that 10g longitudinal, 5g lateral and 2g vertical be applied to the tiedown devices. It would follow from paragraph 173.412 (i) that failure of the tie-down attachments under these load cases does not impair the ability of the package to meet other Type A requirements. Or is there some other load case indicative of "accident conditions" for Type A packages?

Best Regards,

Chris Backus
Packaging Engineer
Transportation Safety



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