



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue SE
Washington, DC 20590

MAY 15 2015

Mr. Delmer Billings
Technical Director
Dangerous Goods Advisory Council
7501 Greenway Center Drive, Suite 760
Greenbelt, MD 20770

Reference No. 14-0225

Dear Mr. Billings:

This is in response to your recent e-mail requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to secondary means of closure on inner packagings that contain Packing Group (PG) II and III liquid materials. We have paraphrased your questions and answered them in the order you provided.

- Q1. What does the language “when a secondary means of closure cannot be applied or is impracticable to apply” as referenced in § 173.27(d)(2) mean?
- A1. This language means an inner packaging intended for the transportation of Packing Group (PG) II and/or III liquids is designed in a manner that either does not permit or is impractical to permit its closure to be held securely in place by a separate “positive” (i.e., non-friction) means. This language permits an alternative form of containment to be used if the secondary closure requirement in § 173.27(d), introductory paragraph, for an inner packaging of liquids placed in a combination packaging and transported by aircraft cannot be met.
- Q2. Do the following methods of closure satisfy the requirement for a secondary means of closure under § 173.27(d)(2): adhesive tape, friction sleeves, welding or soldering, locking wires, locking rings, induction heat seals, and child-resistant closures?
- A2. As stated in the introductory paragraph of § 173.27(d)(2), acceptable methods of secondary means of closure include the methods you listed as well as others of similar positive means, such as shrink wrap, to ensure closures are held in place. Please note downward pressure alone exerted upon a friction-type closure (e.g., stoppers, corks, caps) does not satisfy this requirement.

- Q3. What factors determine if a secondary means of closure cannot be applied or is impracticable to apply?
- A3. Packaging conditions that may make a secondary means of closure impracticable or impossible to apply include physical dimensions and/or conditions that may make containment or adherence in a secondary closure problematic. These conditions can include irregular shaped or oversized packagings; packaging materials, condensation, or temperatures that make attachment with an adhesive difficult; and transportation conditions that promote expansion or contraction of the packagings or their contents.
- Q4. If a method of closure is impracticable or cannot be applied, what support is necessary to make this determination?
- A4. Unless otherwise excepted under the HMR, the package must be able to physically demonstrate that it satisfies the general packaging requirements prescribed in §§ 173.24, 173.24a, and 173.24b. If the package also meets a DOT specification or UN standard, it must also satisfy the applicable performance requirements for these packagings, which is essentially a package engineering assessment. Support for making a determination that a method of closure is impracticable or cannot be applied can occur through handling experience, package testing, incident reporting, and in discussions with PHMSA's packaging engineers.

I hope this satisfies your request.

Sincerely,



T. Glenn Foster
Chief, Regulatory Review and Reinvention Branch
Standards and Rulemaking Division

Edmanson
§ 173.27(d)(2)
General requirement for
transportation by aircraft
14-0225

Dodd, Alice (PHMSA)

From: Betts, Charles (PHMSA)
Sent: Tuesday, November 18, 2014 10:02 AM
To: Dodd, Alice (PHMSA)
Cc: Goodall, Shante CTR (PHMSA); Delmer Billings (DBillings@dgac.org)
Subject: FW: § 173.27(d)(2)

Importance: High

Alice –

Please log and assign to a specialist for response.

Thanks,
Charles

From: Delmer Billings [mailto:DBillings@dgac.org]
Sent: Tuesday, November 18, 2014 9:56 AM
To: Betts, Charles (PHMSA)
Cc: Delmer Billings
Subject: § 173.27(d)(2)
Importance: High

Charles,

A member has requested an interpretation of 49 CFR 173.27 (d)(2), regarding the meaning of: **when a secondary closure cannot be applied or impracticable to apply** to inner packaging containing liquids of Packaging Groups II or III....?

Does this mean if there are methods available such as adhesive tape, friction sleeves, welding or soldering, locking wires, locking rings, induction heat seals, and child-resistant closures that can be used as a secondary means of closure then a leakproof liner can't be used? What factors determine if a secondary means of closure can't be applied or is impracticable to apply? If a method is impracticable or can't be applied what support for this determination is necessary?

If possible, an informal email response would be appreciated, pending an official written interpretation.

Thanks for the assistance.

Del

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