U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

September 25, 2020

Joshua Hess
General Supply Specialist
Defense Logistics Agency
2001 Mission Drive
2nd Floor, Suite 6
New Cumberland, PA 17070

Reference No. 20-0054

Dear Mr. Hess:

This letter is in response to your July 27, 2020, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to UN specification combination packaging test requirements. Specifically, you provide the following scenario:

- You prepare hazardous materials shipment for air transportation;
- The hazardous material is placed in a fiberboard (4GV) specification combination packaging;
- The inner packaging, as provided from the manufacturer, is a paint can that is sealed with a locking ring; and
- The manufacturer states that "when installed correctly, it allows the paint can to meet 95 kPa" and the requirements of § 173.13.

We have paraphrased and answered your questions as follows:

Q1. You ask whether the entire combination packaging needs to meet the pressure requirements of § 173.27, when the inner packaging meets those pressure requirements.

A1. The answer is no. Section 173.27(c)(2) requires that for transportation by aircraft, packagings for which retention of liquid is a basic function must be capable of withstanding—without leakage—the pressure requirements of either §§ 173.27(c)(2)(i) or (ii), whichever is greater. Therefore, if the inner packaging meets the pressure requirements of § 173.27(c)(2), the outer packaging is not required to also meet those pressure requirements.

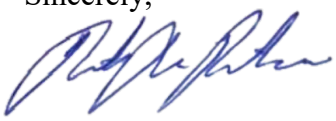
Q2. You ask whether the paint can inner packaging could become an intermediary packaging without the entire package being retested. You state that the paint can inner packaging would be filled with another inner packaging that contains the liquid hazardous material.

A2. The answer is yes, if the provisions of § 178.601(g)(2) can be met. The packaging you described in your scenario is marked as having passed the selective testing and meeting the conditions of combination packaging, variation 2 in § 178.601(g)(2) (the "V" in the "4GV" marking indicates compliance with this variation). Under certain conditions in § 178.601(g)(2), this variation authorizes the assembly and transportation of a different inner packaging than originally tested. Therefore, if your new inner packaging within the intermediate package configuration can meet the variation 2 requirements, the combination packaging does not need to be retested.

If the variation 2 provisions of § 178.601(g)(2) cannot be met, the package would need to be retested. By placing an additional inner packaging into the originally tested inner packaging (i.e., paint can), the originally tested inner packaging now meets the § 171.8 definition of an intermediate packaging. Therefore, this new combination packaging would meet the definition of a different packaging and would be required to be retested.

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,



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

From: INFOCNTR (PHMSA)
To: Hazmat Interps
Subject: FW: Inner packaging meeting 95 KPA without whole package being tested
Date: Wednesday, July 29, 2020 1:57:01 PM

Dear Alice and Ikeya,

Please see below for a letter of interpretation request.

Please contact our office with any questions.

Thank you,

Sarah (HMIC)

From: Hess, Joshua D CIV DLA HUMAN RESOURCES (USA) [mailto:Joshua.Hess@dla.mil]
Sent: Monday, July 27, 2020 11:01 AM
To: PHMSA HM InfoCenter <PHMSAHMInfoCenter@dot.gov>
Subject: Inner packaging meeting 95 KPA without whole package being tested

Good afternoon Mr. Shane Kelly,

I am looking to find some clarification on combination packaging's going air. In the example I would be using a 4GV box with the inner being paint cans sealed with a manufactures (Uline, label master, etc.) locking ring. The manufacture of the locking ring states that "when installed correctly it allows the paint can to meet 95 KPA". It also states that it meets the requirements of 173.13 of the 49CFR. 173.13 references 173.27 which is the regulation saying that that inner containers must meet 95 or 75 KPA depending on Packing group and class identification. I know that fiberboard boxes do not require a pressure test as per the regulations. I also know that inners of a combination package do not need pressure test as per the regulation, but they do need to meet the pressures stated in 173.27. Also with this package all other requirements would be met(spill containment, absorbent material, etc) as per regulation. I am being advised that even though the manufacture states that the locking ring and can will meet 95 KPA that the entire package must still be tested in order to prove that the entire package meets 95 KPA. Does this entire assembled package need to be tested before being used to ship HAZ or is the tested locking ring and can sufficient to meet the requirements for an air shipment in a 4GV outer? Also would this inner can and lock ring be sufficient to ship as an intermediate container with different inners and as the inner itself to contain a liquid? I would like to request a formal letter of interpretation for this concern.
Thank you in advance for you assistance with this information.

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