



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

1200 New Jersey Avenue, SE
Washington, DC 20590

March 23, 2026

Geno R. Delfino
Senior Tech, Logistics
Collins Aerospace
3530 Branscombe Road
P.O. Box KK
Fairfield, CA 94533

Reference No. 25-0151

Dear Mr. Delfino:

This letter is in response to your October 31, 2025 email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the general requirements for different packaging types. You seek clarification on what constitutes a different packaging under § 178.601(c)(4) and what modifications are allowed without being treated as a different packaging, particularly related to combination packagings. Moreover, you state that PHMSA has provided conflicting information in previously published Letters of Interpretation¹ over the years.

We have paraphrased and answered your questions as follows:

- Q1. If a combination packaging design passes United Nations (UN) design qualification testing with a specific cushioning material (*e.g.*, foam padding), can the cushioning material be changed without the packaging being considered as a “different packaging?” Specifically, would switching from one foam specification to another, or from loose foam sheets to loose cellulosic cushioning, be excepted from required retesting of the packaging?
- A1. No, regarding both questions. Changing the cushioning material is considered a modification of the packaging design. The performance of a UN combination package relies on the specific arrangement of inner packagings, and the cushioning system used during testing. According to § 178.601(c)(4), “A different packaging is one that differs (*i.e.*, is not identical) from a previously produced packaging in structural design, size,

¹ Ref. Nos. [00-0216](#), [02-0026](#), [05-0025](#), [20-0010](#), and [22-0057](#).

material of construction. . .” Therefore, any change to the cushioning material will require retesting for compliance.

- Q2. If cushioning material (*e.g.*, foam padding) is permanently affixed to the inside of the outer packaging, and a later production run uses a different type of foam padding that is applied in the same manner, can this change be considered as differing only in “surface treatment” consistent with clarification offered in a previous letter of interpretation (Ref. No. 00-0216)? In other words, would this substitution avoid the determination as a “different packaging”?
- A2. No. Changing the permanently affixed cushioning material does not qualify the packaging as differing only in surface treatment. The HMR do not define the term “surface treatment,” but it generally refers to changes that do not affect the structural or critical performance characteristics of the packaging. Changing the foam padding affixed to the inside of the outer packaging is a critical performance characteristic.
- Q3. Can you add an intermediate container (*e.g.*, a fiberboard box) to a combination packaging configuration that originally had none (*e.g.*, inner plastic bags placed directly in an outer fiberboard box) without it being considered a “different packaging”?
- A3. Adding an intermediate container alters the tested packaging configuration and may constitute a design change. Since UN performance packaging is qualified based on the complete packaging system, this modification could be considered a different packaging design and might require new design qualification testing.
- Q4. Can you change the intermediate container in a combination packaging (*i.e.*, from a plastic bag to a fiberboard box) without it being considered a “different packaging”?
- A4. Yes. An intermediate container may be replaced with a different design (*e.g.*, substituting a fiberboard box for a plastic bag) without being considered a “different packaging,” provided the substitution qualifies as an authorized variation under § 178.601(g) and can be demonstrated to be equivalent to or stronger than the original in material closure integrity, dimensions, and any required cushioning or absorbent function. If the substitution exceeds the scope of permitted variations or materially affects the performance of the packaging system, the modified configuration would be considered a new packaging design and would require separate design qualification testing.
- Q5. Does § 173.24(c)(2) permit the types of changes described in Q3 and Q4?
- A5. No. Section 173.24(c)(2) permits the use of supplementary packagings to ensure compliance with the general requirements; however, it does not specify whether modifications to a packaging constitute a new packaging design as that determination is made under § 178.601, which governs UN packaging design qualification and permitted variations.

- Q6. If a combination packaging design is successfully qualified using a specified configuration of multiple cushioning materials (*e.g.*, foam sheets, cellulosic sheets, bubble wrap), does § 178.601(g)(4) require that every type of cushioning material used in the test must also be present in every subsequent production package?
- A6. Yes. Section 178.601(g)(4)(iv) requires every type and design of cushioning material that was used during design qualification testing to be used in each production package. The HMR requires that the cushioning used in production provide the same overall level of protection as that provided by the cushioning configuration used in the tested design type packaging. In addition, the thickness of cushioning material between inner packagings, and between the inner packagings and the outer packaging, may not be less than the thicknesses used in the tested design type packaging.
- Q7. Is it acceptable to use only one of the previously tested cushioning materials instead of all cushioning materials previously tested, provided that the void space is properly filled in accordance with § 178.601(g)(4)(v)?
- A7. No. In the design testing scenario described in question Q6, it is not acceptable to use only one of the cushioning materials that was used in the qualified design. See answer A6. Additionally, if your design qualification test involves multiple cushioning material (*e.g.*, a box filled with a mix of foam, bubble wrap, and cellulose all at once) and it passed, the test demonstrated that this specific mixture of cushioning material provides the necessary protection.

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: [Baker, Yul \(PHMSA\)](#)
Cc: [Hazmat Interps](#)
Subject: FW: Letter of Interpretation Request: Conflicting LOI's on 49 CFR 178.601(c)(4), and one question regarding 49 CFR 178.601(g)(4)
Date: Monday, November 3, 2025 15:48:12
Attachments: [DOT LOI 22-0057.pdf](#)
[DOT LOI 20-0010.pdf](#)
[DOT LOI 05-0025.pdf](#)
[DOT LOI 02-0026.pdf](#)
[DOT LOI 00-0216.pdf](#)

Good afternoon,

Please see the following request for a letter of interpretation. Let us know if you need anything else.

Best,

Aminah

From: Delfino, Geno <Geno.Delfino@collins.com>
Sent: Friday, October 31, 2025 11:50 AM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Cc: Delfino, Geno (USA) <Geno.Delfino@collins.com>
Subject: Letter of Interpretation Request: Conflicting LOI's on 49 CFR 178.601(c)(4), and one question regarding 49 CFR 178.601(g)(4)

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Hello,

I seek clarity from DOT PHMSA on what their current stance is for a different packaging under 49 CFR 178.601(c)(4) and what changes are allowed to not be considered a different packaging, specifically in regard to combination packaging. There appears to be conflicting information from multiple LOI's over the years.

LOI 22-0057 states that a change in cushioning material (i.e. no cushioning material in the original design qualification testing and then adding cushioning material thereafter) is not considered a different packaging and would not require a design qualification testing of the altered package.

LOI 20-0010 states that the inner packaging must be the only component that differs

within the combination package. It appears that cushioning material must remain the same as tested and cannot be changed without design qualification testing using the new cushioning of choice.

LOI 05-0025 states that an intermediate container (i.e. liner) can be added and it is not a different packaging.

LOI 02-0026 states addition of a liner or other containment would not be considered a different packaging.

I have a few different scenarios and questions I would appreciate clarity on to help understand what is or is not allowed:

1. If a combination package passed design qualification testing with one cushioning material (i.e. foam padding), could the cushioning material be changed to a new material without being considered a different packaging? What if the change is from one foam padding to a different spec of foam padding? Or what if the change is from loose foam sheets to loose cellulosic cushioning? Can the cushioning be changed without issue in either scenario without being considered a different packaging?
2. For Q1, if the cushioning material (i.e. foam padding) is permanently affixed to the inner surface of the outer package and the next build by supplier uses a different spec of foam padding still permanently affixed in the same manner, would it be accurate to view this as a change in surface treatment in accordance with LOI 00-0216 and the new build would not be considered a different packaging?
3. Is it also possible to add an intermediate container (i.e. a fiberboard box) to a combination package (i.e. inner plastic bags and outer fiberboard box) where an intermediate container did not exist previously, and it would be considered to not be a different packaging?
4. Is it acceptable to alter a combination package by making a change to the intermediate container? i.e. changing the intermediate container from a plastic bag to a fiberboard box?
5. Does 49 CFR 173.24(c)(2) allow these changes for Q3 and Q4?
6. For a combination package that passed design qualification testing with varying loose pieces of cushioning materials at one time (i.e. foam sheets, cellulosic sheets, bubble wrap sheets, etc.), if we decide to follow 49 CFR 178.601(g)(4), under (49 CFR 178.601(g)(4)(iv) would we need to place all varying cushioning materials inside or would it be acceptable to place only one of those tested cushioning materials inside as long as void space is taken up by the cushioning material per 49 CFR 178.601(g)(4)(v)?

Thank you,

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