



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

1200 New Jersey Avenue, SE  
Washington, DC 20590

July 31, 2023

Paul Errichetti  
Sr. Mgr., Fleet and Dangerous Goods  
W. R. Grace & Co – Conn.  
7500 Grace Drive  
Columbia, MD 21044

Reference No. 23-0021

Dear Mr. Errichetti:

This letter is in response to your March 6, 2023, email and subsequent phone conversations requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to Department of Transportation (DOT) specification packagings. You indicate that your company has a fleet of cylinders that were manufactured and certified as DOT-4BW cylinders; however, due to frustrations with using these packagings internationally, you prefer to test and certify them as United Nations (UN) specification steel drums (i.e., UN1A1). You note that the DOT-4BW cylinders meet the physical specifications and have passed required testing to qualify as UN1A1 steel drums, and that no physical changes are needed to meet the UN1A1 packaging standard.

We have paraphrased and answered your questions as follows:

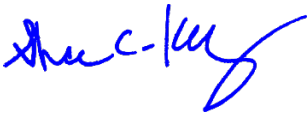
- Q1. You ask whether your company may remanufacture a cylinder—which currently meets the DOT-4BW specification standard—as now meeting the UN1A1 steel drum specification standard.
- A1. The answer is yes, as the HMR does not prohibit this action. As provided in § 173.28, remanufacture includes the conversion of a packaging meeting one specification or standard to another specification or standard. Note that a person (or company) who remanufactures a non-bulk packaging to conform to a specification or standard is subject to the manufacturer’s requirements outlined in Part 178 of the HMR.
- Q2. You ask whether a non-bulk container may be dual-marked as a DOT-4BW cylinder and as a UN1A1 steel drum.

- A2. The answer is yes. In accordance with § 178.3(c), if a packaging conforms to more than one UN standard or DOT specification, the packaging may bear more than one marking provided all requirements are met and each marking is shown in full.
- Q3. You ask whether the original DOT-4BW cylinder marking may be covered up with the new UN1A1 steel drum marking.
- A3. The answer is yes. Note, however, that with regard to your scenario, a packaging previously marked as representing compliance with the DOT-4BW specification but no longer maintained as such must have the marking covered or obliterated prior to its use and transportation. In your scenario, the DOT-4BW marking may be covered up by the UN1A1 specification marking in its place.
- Q4. If remanufacture is permitted, you ask whether you may use a third-party agency to perform the remanufacture and validation testing.
- A4. The answer is yes.
- Q5. You ask whether a 58-gallon UN1A1 steel drum marked with the appropriate nominal thickness marking requires additional leakproofness tests in order to be reused.
- A5. The answer is yes, unless the requirements of § 173.28(b)(7) are met—which include that the packaging:
- (1) is refilled with a material which is compatible with the previous lading;
  - (2) is refilled and offered for transportation by the original filler;
  - (3) is transported in a transport vehicle or freight container under the exclusive use of the refiller of the packaging; and
  - (4) is constructed of stainless steel, monel, or nickel with a thickness not less than one and one-half times of the minimum thickness requirement.
- Q6. You ask what package description is appropriate on the shipping paper when shipping this package if it is dual-marked as a DOT-4BW cylinder and as a UN1A1 steel drum.

A6. For a packaging that is dual-marked because it meets more than one packaging specification and type, either packaging type is appropriate when listing it on the shipping paper, provided that it is an authorized packaging for the material.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Shane C. Kelley". The signature is fluid and cursive, with a long horizontal stroke at the end.

Shane C. Kelley  
Director,  
Standards and Rulemaking Division

**From:** [INFOCNTR \(PHMSA\)](#)  
**To:** [Dodd, Alice \(PHMSA\)](#)  
**Cc:** [Hazmat Interps](#)  
**Subject:** FW: LOI for 49 CFR 178.28(d)  
**Date:** Wednesday, March 15, 2023 4:31:50 PM  
**Attachments:** [DOT-PHMSA LoI 49CFR173.28d - 06Mar2023.pdf](#)

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Hello Alice,

Please see the attached interpretation request.

Let us know if you need anything.

Regards,

-Breanna

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**From:** Errichetti, Paul <Paul.Errichetti@grace.com>  
**Sent:** Monday, March 6, 2023 4:30 PM  
**To:** PHMSA HM InfoCenter <PHMSAHMInfoCenter@dot.gov>  
**Subject:** LOI for 49 CFR 178.28(d)

**CAUTION:** This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Hi,

Please find attached a request for formal letter of interpretation.

If you have questions with regards to this request please contact me via email or my mobile number listed below in my signature.

Thanks,

**Paul Errichetti** | Senior Manager, Fleet & Dangerous Goods

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March 6, 2023

Mr. Shane Kelley  
Director, Standards and Rulemaking Division  
U.S. DOT/PHMSA (PHH-10)  
1200 New Jersey Avenue  
SE East Building, 2<sup>nd</sup> Floor  
Washington, DC 20590

Dear Mr. Kelley:

I am contacting the agency on behalf of WR Grace with this formal request for a letter of interpretation regarding the Hazardous Materials Regulations 49 CFR 173.28(d).

WR Grace has a fleet of roughly 4,000 returnable packagings.

The packagings were originally constructed as 4BW DOT cylinders meeting the requirements of 49 CFR 178.35 & 178.61.

Question 1: Can WR Grace remanufacture DOT-4BW cylinders to a UN1A1 steel drum packaging?

Question 2: Can a non-bulk container be dual-marked as a DOT-4BW cylinder and UN1A1 steel drum packaging?

Question 3: Can the DOT-4BW cylinder markings be covered up with UN1A1 steel drum packaging marks?

Question 4: If WR Grace is permitted to remanufacture; may we use a 3<sup>rd</sup> Party Certification agency to perform remanufacture validation testing?

Question 5: An UN1A1 58 gal steel drum to be reused requires that the packaging has a 0.92 mm nominal marking for reuse and a leakproofness test and subsequent reuse does not require leakproofness test?

Question 6: If the packaging is dual-marked as a DOT-4BW and UN1A1 steel, what is the correct packaging description for shipping documents?

If you have any questions or need clarification to my questions, please feel free to contact me by cell phone at (732) 306-0683 or via email at Paul.Errichetti@grace.com.

Sincerely,

*Paul Errichetti*

Paul Errichetti  
Sr. Mgr., Fleet and Dangerous Goods