



U.S. Department
of Transportation

1200 New Jersey Avenue SE
Washington, DC 20590

**Pipeline and Hazardous
Materials Safety
Administration**

OCT 18 2012

Mr. Lee R. Zwiefelhofer
Senior Logistics/Hazmat Specialist
Detector Electronics Corporation
6901 West 110th St.
Minneapolis, MN 55438

Reference No.: 12-0172

Dear Mr. Zwiefelhofer:

This is in response to your August 08, 2012 e-mail requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). You present several scenarios, and ask numerous questions pertaining to package makings and about HMR definitions. Your scenarios and questions are paraphrased and answered as follows:

Scenario 1: You state that shipments of Compressed Gases, N.O.S., UN 1956 in DOT-39 cylinders are required to be packaged in strong, non-bulk outer packagings with a marking of "Inner packagings conform to the prescribed specifications" in accordance with § 173.301(a)(9). The outer packaging would also include the proper shipping name, UN number, a Class 2.2 hazard label, consignee and consignor address markings, and a "Net Qty xx kg" marking for air shipments. You further state that § 173.25(a)(4) requires overpacks to be marked with the word "OVERPACK" when specification packagings are required, unless specification markings on the inside packages are visible.

Q1. If DOT-39 cylinders are packaged and marked as described in Example 1 above, and then are either palletized or placed into another non-specification outer box for consolidation purposes with inner package markings not visible, is an "OVERPACK" marking required on the enclosure that is being used to consolidate the strong non-bulk outer packagings that are not a specification packaging? Does it make any difference that the inner receptacle in the outer non-specification packaging is a DOT-39 specification cylinder? Under § 173.301(a)(9), it does state that this configuration is a combination packaging. My interpretation is that an "OVERPACK" marking would not be required as this is a combination packaging that uses a non-specification "strong non-bulk outer packaging."

A1. Your understanding of the requirement for marking the word "OVERPACK" on an overpacked DOT-39 cylinder package is incorrect. Section 173.25(a)(4) requires the marking of the word "OVERPACK" when specification packagings are required. You are correct that a DOT-39 cylinder correctly packaged in accordance with § 173.301(a)(9) is a

combination package. However, because the cylinder itself is a specification package, the "OVERPACK" marking is required when overpacked.

Q2. If an "OVERPACK" marking is not required, would the overpack be required to have the "Inner packagings conform to the prescribed specifications" marking be placed on it to comply with §§ 173.25(a)(2) and 173.301(a)(9)?

A2. See A3.

Q3. If an "OVERPACK" marking is required, would the overpack be required to have the "Inner packagings conform to the prescribed specifications" marking placed on it to comply with §§ 173.25(a)(2) and 173.301(a)(9)?

A3. The answer is no. There is no requirement to carry over the "inner packagings conform to the prescribed specifications" marking in § 173.301(a)(9).

Scenario 2: Shipments of UN2911, Radioactive Material, Excepted Package – Article, per requirements in §§ 173.424 and 173.422, are required to be contained in an outer package (non-specification) for shipment and marked with "UN2911" under CFR 49, and have the Radioactive Material, Excepted Package red hatched label and permissible gross weight label for air shipments under the International Air Transport Association (IATA) or International Civil Aviation Organization (ICAO), along with the consignor and consignee address markings.

Q4. If UN2911 material that is packaged in an outer package (non-specification) is then placed into an overpack where the inner box markings are not visible, would an "OVERPACK" marking have to be placed on the box or pallet load being used for consolidation purposes, or would only the markings applied to the outer non-specification outer packaging be applied to the pallet or box being used for consolidation purposes?

A4. As your package contains no specification packaging, no "OVERPACK" marking is required by § 173.25.

Scenario 3: You state that as specified in § 171.8, the definition of a non-bulk packaging for a solid is a maximum net mass of 882 lbs or less and a maximum capacity of 450 L (119 gallons) or less as a receptacle for a solid.

Q5. Do combination packagings that contain inner packagings with solids, liquids or gases fall under the category of solids under the non-bulk packaging definition?

A5. The answer is no. The physical state of the commodity being shipped should be used in making a bulk or non-bulk determination.

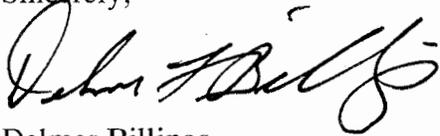
Q6. Is the maximum package size for a non-bulk packaging for solids defined by the volume of the 119 gallon capacity? By my calculations that equates to 15.9 cubic feet. Under the non-bulk definition for solids (combination packagings) are you then limited to 882 lbs and 15.9 cubic feet per package to comply with this definition? If not,

what purpose does the 119 gallon reference have for non-bulk solid packagings (including combination packagings)?

A6. Section 171.8 defines a non-bulk packaging, as a receptacle for a solid, as a packaging which has a maximum net mass of 400 kg (882 pounds) or less and a maximum capacity of 450 L (119 gallons). In order to meet the definition of a non-bulk packaging, a receptacle for a solid must have both a maximum net mass of 400 kg (882 pounds) or less and a maximum capacity of 450 L (119 gallons).

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

Sincerely,

A handwritten signature in black ink, appearing to read "Delmer Billings". The signature is written in a cursive style with a large initial "D" and a long, sweeping tail.

Delmer Billings
Senior Regulatory Advisor
Standards and Rulemaking Division

Drakeford, Carolyn (PHMSA)

Webb
§ 173.25
§ 171.8
§ 173.301
Overpacks
12-0172

From: INFOCNTR (PHMSA)
Sent: Thursday, August 09, 2012 3:08 PM
To: Drakeford, Carolyn (PHMSA)
Subject: FW: Requesting Formal Letter of Interpretation

Carolyn,

We received the following request for a formal letter of interpretation.

Thanks,
Victoria

From: Zwiefelhofer, Lee R CCS [mailto:Lee.Zwiefelhofer@det-tronics.com]
Sent: Wednesday, August 08, 2012 5:04 PM
To: INFOCNTR (PHMSA)
Subject: Requesting Formal Letter of Interpretation

Dear Sir or Madam:

Detector Electronics Corporation is requesting a formal Letter of Interpretation on paragraphs 173.25, Authorized packagings and overpacks and on 171.8 Definitions and abbreviations for Non-bulk packaging. Please review the background information below for each of the paragraphs and provide answers to the questions that follow each example.

Background:

Under 173.25(a)(4), it states "The overpack is marked with the word "OVERPACK" **when specification packagings** are required, unless specification markings on the inside packages are visible.

Example 1: Shipments of Compressed Gases, N.O.S., UN1956 in DOT-39 NRC Cylinders are required to be packaged in strong non-bulk outer packagings with a marking of "Inner packagings conform to the prescribed specifications" in accordance with 173.301(a)(9). The outer packaging would also include the proper shipping name, UN number, a Class 2.2 hazard label, consignee and consignor address markings and a "Net Qty xx kg" marking for air shipments.

- **Question 1:** If DOT-39 Cylinders are packaged and marked as described in Example 1 above, and then are either palletized or placed into another non-specification outer box for consolidation purposes with inner package markings not visible, is an "OVERPACK" marking required on the enclosure that is being used to consolidate the strong non-bulk outer packagings that are not a specification packaging? Does it make any difference that the inner receptacle in the outer non-specification packaging is a DOT-39 specification cylinder? Under 173.301(a)(9), it does state that this configuration is a combination packaging. My interpretation is that an "OVERPACK" marking would not be required as this is a combination packaging that uses a non-specification "strong non-bulk outer packaging".
- **Question 2:** If an "OVERPACK" marking **is not** required, would the overpack be required to have the "Inner packagings conform to the prescribed specifications" marking be placed on it to comply with 173.25(a)(2) and 173.301(a)(9)?
- **Question 3:** If an "OVERPACK" marking **is** required, would the overpack be required to have the "Inner packagings conform to the prescribed specifications" marking be placed on it to comply with 173.25(a)(2) and 173.301(a)(9)?

Example 2: Shipments of UN2911, Radioactive Material, Excepted Package – Article, per requirements in 173.424 and 173.422, are required to be contained in an outer package (non-specification) for shipment and marked with “UN2911” under CFR 49, and have the Radioactive Material, Excepted Package red hatched label and permissible gross weight label for air shipments under IATA/ICAO, along with the consignor and consignee address markings.

- **Question 1:** If UN2911 material that is packaged in an outer package (non-specification) is then placed into an overpack where the inner box markings are not visible, would an “OVERPACK” marking have to be placed on the box or pallet load being used for consolidation purposes, or would only the markings applied to the outer non-specification outer packaging be applied to the pallet or box being used for consolidation purposes?

Background:

Under paragraph 171.8, the definition of a non-bulk packaging for a solid is 882 lbs or less and a maximum capacity of 450 L (119 gallons) or less as a receptacle for a solid.

- **Question 1:** Do combination packagings that contain inner packagings with solids, liquids or gases fall under the category of solids under the non-bulk packaging definition?
- **Question 2:** Is the maximum package size for a non-bulk packaging solid defined by the volume of the 119 gallon capacity? By my calculations that equates to 15.9 cubic feet. Under the non-bulk definition for solids (combination packagings) are you then limited to 882 lbs and 15.9 cubic feet per package to comply with this definition? If not, what purpose does the 119 gallon reference have for non-bulk solid packagings (including combination packagings)?

Thank you for your assistance in this matter.

Regards,

Lee R. Zwiefelhofer
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