



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue SE  
Washington, DC 20590

AUG 21 2015

Mr. Mark R. Kaster  
Dorsey & Whitney LLP  
50 South Sixth Street, Suite 1500  
Minneapolis, MN 55402-1498

Reference No.: 15-0114

Dear Mr. Kaster:

This is in response to your June 5, 2015 letter in which you requested written clarification of the Hazardous Materials Regulations (HMR; 49 CFR parts 171-180) concerning the exceptions for small lithium cells or batteries installed in a device.

In your letter, you provide information about a device, an installed lithium button cell battery and its packaging. The device contains one lithium metal button cell battery with a lithium content of 0.07 grams. The lithium button cell battery is of a type that meets the criteria in the UN Manual of Tests and Criteria Part III Sub Section 38.3. One device is packaged in a retail packaging, and there are no spare batteries in the packaging. Several retail packages are consolidated in an overpack and transported by ground or air. Alternatively, multiple overpacks are palletized and shrink-wrapped and transported by ground or air. Your questions are paraphrased and answered below.

Q1. Please confirm that a lithium button cell battery installed in the device as described above meets the exceptions contained in § 173.185(c) and no special marking is required on the package even when the individual packages are aggregated and shipped in an overpack or on a pallet.

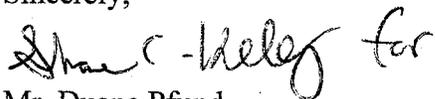
A1. Your understanding is correct. In accordance with § 173.185(c), a package containing lithium metal cells or batteries (not exceeding 1 g for a lithium metal cell or 2 g for a lithium metal battery) contained in equipment in quantities less than 5 kg net weight per package is excepted from the requirement to mark the outer package to indicate it is forbidden aboard passenger aircraft. In addition, § 173.185(c)(3) excepts button cell batteries installed in equipment from the hazard communication requirements, including marking and documentation requirements prescribed in § 173.185(c)(3)(i) and (ii), respectively. Provided the retail packaging that contains the lithium metal button cell battery installed in the device meets the general packaging requirements for lithium batteries contained in equipment prescribed in § 173.185(b)(4), the package is not subject to marking or hazard communication requirements. This exception applies regardless of whether or not multiple packages are consolidated and shipped in an overpack.

Q2. Section 173.185(c)(4) prescribes additional requirements for smaller cells or batteries transported by air. You ask if a package containing lithium metal button cell batteries installed in equipment that otherwise meets the provisions for smaller cells and batteries in § 173.185(c)(3) is required to be marked with the lithium battery handling mark in § 173.185(c)(4)(i).

A2. The exception provided in § 173.185(c)(3) that excepts packages containing button cell batteries installed in equipment (including circuit boards), or no more than four lithium cells or two lithium batteries installed in the equipment, from the hazard communication requirements also applies to air transport. We intend to clarify in a future rulemaking that the handling mark in § 173.185(c)(4)(i) is not required on packages containing button cell batteries installed in equipment (including circuit boards) or no more than four lithium cells or two lithium batteries installed in equipment.

I trust this information is helpful. Please do not hesitate to contact us if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Duane Pfund for". The signature is written in a cursive, flowing style.

Mr. Duane Pfund  
International Standards Coordinator  
Office of Standards and Rulemaking

*Antonielli*  
*§ 173.185*  
*Batteries*  
*15-0114*

June 5, 2015

Charles E. Betts, Director  
Standards and Rulemaking Division  
U.S. DOT/PHMSA (PHH-10)  
1200 New Jersey Avenue  
SE East Building, 2nd Floor  
Washington, DC 20590

**BY CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Re: Request for Letter of Interpretation of Hazardous Materials Regulations (HMR)  
for Lithium Cells and Batteries, 49 C.F.R. § 173.185

Dear Mr. Betts:

We are submitting this letter to request a formal interpretation of the lithium battery regulations ("HMR Regulations") found in 49 C.F.R. § 173.185. We are seeking clarification on whether the lithium metal button battery contained in a hand-held medical device and distributed through various modes of transportation (1) is exempt from the majority of requirements of the HMR Regulations under the exceptions for smaller cells or batteries, and (2) does not require a lithium battery label or a handling label on the exterior of (i) overpacks containing multiple units of individual retail packages of the product when shipped via ground or air modes of transportation, and (ii) palletized configurations containing multiple overpacks, when shipped via ground or air modes of transportation.

We are making this request because we understand that the HMR Regulations were intended to be harmonized with international standards (e.g., International Air Transport Association (IATA) guidelines), but we need clarification on a discrepancy between the HMR Regulations and the IATA guidelines.

**A. Factual Background**

Our client sells a consumer handheld medical device that contains one small lithium metal button battery with a lithium content of .07 grams. The lithium metal button batteries are manufactured according to the requirements of UN Manual of Tests and Criteria. The button battery is packed in the medical device and the medical device is then placed into retail packaging. There are no spare batteries provided within the packaging. The products are transported for distribution in their retail packages. However for shipping logistics purposes, multiple retail packages may be placed in an overpack in various configurations (usually in counts of 12-24 retail units in an overpack) and many overpacks may be placed on a shrink-wrapped gaylord or pallet for shipment. The devices can be transported either by air or surface modes of transportation in the United States.

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**B. Questions for which Clarification is Requested**

1. Does the shipment of a product containing a lithium metal button battery with .07 grams of lithium content fall under the small battery exclusion in 49 C.F.R. Part 173.185(c), where multiple individual packages of the product may be overpacked and/or aggregated onto a pallet for shipment? In other words, does a package consisting of separate individual retail boxes, each containing a product that has a .07 gram lithium button battery installed in the product, fall under the small battery exclusion when multiple units of the product are overpacked or palletized and transported together?
2. Does the exterior of the overpack or palletized shipment of products require a lithium battery label or a handling mark under the HMR Regulations where the products included in the overpack or pallet are separately packaged and each product package only contains a single .07 gram lithium button battery installed in the product?

**C. Analysis**

1. The lithium metal button batteries contained in the medical devices fall within the exception for smaller cells or batteries under 49 C.F.R. 173.185(c) because the lithium content (only .07 gram) does not exceed the 2 gram threshold established for lithium metal batteries in the HMR Regulations. Further, the HMR Regulations state that except where the lithium metal batteries are packed with or contained in equipment, the outer package must be marked to forbid transport aboard passenger aircraft. Further, the HMR Regulations state that except for a package containing button cell batteries installed in equipment, certain hazard communication requirements are triggered, including the marking of the outer package. 49 C.F.R. 173.185(c) (1) and (3).

Our interpretation is that small lithium button cell batteries (.07 grams) installed in the medical devices meets the exceptions for smaller cells or batteries in the HMR Regulations and do not require any special markings on the package, even when the individual packages are aggregated and shipped together in an overpack or on a pallet. We ask the agency to confirm our conclusion.

2. For transportation by air, the exception for smaller lithium cells or batteries are subject to the provisions of 49 C.F.R. 173.185(c) (4). The HMR regulations provide that for lithium metal batteries with a content of not more than 0.3 grams, there is no limit on the maximum number of batteries in a package. *Id.* However, that HMR Regulations state that the outer package must be durably and legibly marked with a "handling mark" displayed on a background of contrasting color. 49 C.F.R. 173.185(c) (4)(i).

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The IATA requirements provide that “a lithium battery handling label is not required for packages ... where a package contains not more than 4 cells or batteries installed in equipment prepared in accordance with Section II of Packing Instructions 967 and 970.” See IATA, *Lithium Battery Guidance Document* (“IATA Guidance Document”) at 19, <http://www.iata.org/whatwedo/cargo/dgr/Documents/lithium-battery-guidance-document-2015-en.pdf>. Moreover, we note that the International Civil Aviation Organization (ICAO) has stated that lithium metal button cell batteries installed in equipment “present virtually no risk in transportation.” See, ICAO, *Lithium Ion and Lithium Metal Button Cells Installed in Equipment*, <http://www.icao.int/safety/DangerousGoods/Working%20Group%20of%20the%20Whole%2012/DGPWG.12.WP.051.2.en.pdf>.

Since the HMR Regulations and the IATA requirements were to be harmonized, we would like the agency to confirm whether a lithium battery handling mark is required for the air shipment of products containing only small lithium button batteries that meet the exceptions in the HMR Regulations for smaller cells or batteries.

**D. Conclusion**

We want to confirm that no special labeling or handling marking is required for the transport of packages, overpacks and/or pallets by air or surface transportation where the packaging contains products with small lithium metal button batteries installed in the products and the lithium batteries meet the exceptions for smaller cells or batteries in the HMR Regulations.

Thank you for your consideration. Please contact me should you have any questions.

Very truly yours,



Mark R. Kaster

MRK