



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, D.C. 20590

MAY 13 2014

L'Gena Shaffer
Technical Consultant
Council on the Safe Transportation of Hazardous Articles, Inc.
7803 Hill House Court
Fairfax Station, VA 22039

Ref. No.: 14-0066

Dear Ms. Shaffer:

This is in response to your letter dated April 1, 2014, requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) relating to a lithium ion battery powered wheelchair or other mobility aid carried by aircraft passengers or crewmembers. You request confirmation of your understanding that: 1) the language in § 175.10(a)(17) does not provide a battery size restriction for mobility aids powered by a lithium ion battery; and 2) the language in § 175.10(a)(17)(v) is specific to collapsible mobility aids with removable batteries.

Your understanding of the requirements of § 175.10(a)(17) are generally correct.

In general, § 175.10(a)(17) does not provide a limitation on the size of the lithium ion battery installed in a wheelchair or other mobility aid. When carried by aircraft passengers or crewmembers, a lithium ion battery powered wheelchair or other mobility aid that is not specifically designed to allow its battery to be removed by the user (e.g., not collapsible) must meet the requirements of § 175.10(a)(17)(i) through (iv) and (vi), and must be carried as checked baggage.

However, for a lithium ion battery powered wheelchair or other mobility aid that is specifically designed to allow its battery to be removed by the user (e.g., collapsible), the requirements of § 175.10(a)(17)(i), (v), and (vi) must be met. In this situation, the installed lithium ion battery must be removed from the wheelchair or other mobility aid and the lithium ion battery and any spares must be carried as carry-on baggage. In addition,

§ 175.10(a)(17)(v)(D) and (E) provide that the installed lithium ion battery must not exceed 25 grams aggregate equivalent lithium content, and a maximum of one spare battery not exceeding 25 grams aggregate equivalent lithium content or two spares not exceeding 13.5 grams aggregate equivalent lithium content each may be carried as carry-on baggage only.

I trust this information is helpful. If you have further questions, please do not hesitate to contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read "Shane C. Kelley", with a long, sweeping horizontal line extending to the right.

Shane C. Kelley
Acting International Standards Coordinator
Standards and Rulemaking Division



Council on Safe Transportation of Hazardous Articles

Babich
§173.185
§175.10
Batteries / Air
14-0066

April 1, 2014

President
Donald Bosow
Sr Mgr NA Reg Affairs/Global Systems
Diversey, Inc.

First Vice President
Sean Broderick
Senior Manager, Global Govt Relations
Procter & Gamble Distributing LLC

Second Vice President/Treasurer
Dave Madsen
HazMat Analyst
Autoliv, Inc.

Secretary
Amy Fischesser
Corporate Hazardous Materials Manager
Sun Chemical Corporation

Executive Committee Member
Robert Heinrich
Transportation Safety Advisor
Novartis Pharmaceuticals

Board of Directors

John D'Aloia
Manager Transportation Compliance
Mary Kay

Jeanette DeGennaro
EHS Compliance Mgr.
Instrumentation Laboratory

Trevor Howard
Mgr Safety/Dangerous Goods Standards
Air Canada

James Jahnke
Sr. Manager Dangerous Goods
Merck and Co.

Richard Lattimer
Consultant-HSE
Eli Lilly and Company

Boyd Stephenson
Director, Hazardous Materials Policy
American Trucking Associations, Inc.

Daniel Wieten
National Mgr Compliance Plan & Admin
Toyota Motor Sales, USA, Inc.

Jeanne Zmich
Vice President R&D
Labelmaster

General Counsel
Richard Schweitzer, PLLC

Mr. Charles E. Betts
Director, Standards and Rulemaking Division
U.S. DOT/PHMSA (PHH-10)
1200 New Jersey Ave., SE
East Bldg. Second Floor
Washington, DC 20590-0001
charles.betts@dot.gov

Dear Mr. Betts:

The Council on Safe Transportation of Hazardous Articles, Inc. (COSTHA) hereby submits a request for interpretation regarding 49 CFR, Part 175, §175.10, paragraph (a)(17). Specifically, COSTHA requests clarification that the battery size limit in subparagraph (v) is specific to collapsible mobility aids with a removable battery that will be stowed onboard the aircraft in the passenger cabin and to spare batteries for the device.

COSTHA is a not-for-profit organization representing manufacturers, shippers, distributors, carriers, freight forwarders, trainers, packaging manufacturers and others associated with the hazardous materials transportation industry. In addition to promoting regulatory compliance and safety in hazardous materials transportation, COSTHA assists its members and the public in evaluating the practicality and efficacy of laws, rules and regulations for the safe transportation and distribution of hazardous materials.

The regulations specifically state:

§175.10 Exceptions for passengers, crewmembers, and air operators.

(a) This subchapter does not apply to the following hazardous materials when carried by aircraft passengers or crewmembers provided the requirements of §§171.15 and 171.16 (see paragraph (c) of this section) and the requirements of this section are met:

...

(17) A wheelchair or other mobility aid equipped with a lithium ion battery, when carried as checked baggage, provided—

- (i) The lithium ion battery must be of a type that successfully passed each test in the UN Manual of Tests and Criteria (IBR; see §171.7 of this subchapter), as specified in §173.185 of this subchapter, unless approved by the Associate Administrator;
- (ii) The operator must verify that:
 - (A) Visual inspection of the wheelchair or other mobility aid reveals no obvious defects;
 - (B) Battery terminals are protected from short circuits (e.g., enclosed within a battery housing);
 - (C) The battery must be securely attached to the mobility aid; and
 - (D) Electrical circuits are isolated;

Council on Safe Transportation of Hazardous Articles

7803 Hill House Court, Fairfax Station, VA 22039 • Phone: (518)761-0389 • Fax: (518)792-7781 • www.costha.com

- (iii) The wheelchair or other mobility aid must be loaded and stowed in such a manner to prevent its unintentional activation and its battery must be protected from short circuiting;
- (iv) The wheelchair or other mobility aid must be protected from damage by the movement of baggage, mail, service items, or other cargo;
- (v) Where a lithium ion battery-powered wheelchair or other mobility aid is specifically designed to allow its battery to be removed by the user (e.g., collapsible):
 - (A) The battery must be removed from the wheelchair or other mobility aid according to instructions provided by the wheelchair or other mobility aid owner or its manufacturer;
 - (B) The battery must be carried in carry-on baggage only;
 - (C) Battery terminals must be protected from short circuits (by placement in original retail packaging or otherwise insulating the terminal e.g. by taping over exposed terminals or placing each battery in a separate plastic bag or protective pouch);
 - (D) The battery must not exceed 25 grams aggregate equivalent lithium content; and
 - (E) A maximum of one spare battery not exceeding 25 grams aggregate equivalent lithium content or two spares not exceeding 13.5 grams aggregate equivalent lithium content each may be carried;
- (vi) The pilot-in-command is advised either orally or in writing, prior to departure, as to the location of the lithium ion battery or batteries aboard the aircraft.

As written, COSTHA believes §175.10(a)(17)(v) applies only to devices that are designed to have the battery removed (e.g. devices such as the travel scoot scooter). We further believe the sub-sub-subparagraphs (D) and (E) to §175.10(a)(17)(v) specify the size limits for these batteries since they will be removed by the user from the device and transported in the passenger cabin. Currently, the HMR requirements are consistent with the ICAO requirements indicating no specific size limit for batteries installed in mobility aids or wheelchairs to be transported in the cargo hold of the aircraft.

In HM-215K, published January 7, 2013 PHMSA also clarifies a “lithium ion battery specifically designed to be removed from a mobility aid (e.g. collapsible) by the user and any spare batteries must be transported in carry-on baggage..”

It is COSTHA’s position that any battery size limit for lithium ion mobility aids with the battery installed would be listed in §175.10(a)(17)(i) through (iv) and not as a sub clause to (v) which details a specific device type. Following the basic outline for the Code of Federal Regulations, Section 175.10, paragraph (a), subparagraph (17), sub-subparagraph (v) only applies “where a lithium ion battery-powered wheelchair or other mobility aid specifically designed to allow its battery to be removed by the user (e.g. collapsible):” Therefore sub-subparagraphs (A) through (E) apply only to subparagraph (v). The size limits at sub-subparagraph (D) and (E) apply only to batteries removed by the user from collapsible mobility aids and carried in carry-on baggage where the regulations provide that the carry-on battery must not exceed 25 grams aggregate equivalent lithium content with provisions for additional spare batteries.

Specifically, we request that PHMSA confirm COSTHA’s interpretation that a) the current language in §175.10(a)(17) does not provide a size restriction for mobility aids powered by lithium ion batteries installed in the device for acceptance as checked baggage, b) §175.10(a)(17)(v) is specific to collapsible mobility aids with removable batteries to be carried on-board the aircraft in the passenger cabin, and c) sub-sub-subparagraphs A through E provide the specific compliance requirements for those devices, including the battery limitation of 25 grams aggregate equivalent lithium content in (D) and spare battery(ies) in (E).

If you have any questions or would like to discuss these issues further, please do not hesitate to contact me.

Respectfully submitted,

A handwritten signature in cursive script that reads "L'Gena Shaffer". The signature is written in dark ink and is positioned above the printed name.

L'Gena Shaffer
Technical Consultant