



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

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

APR - 1 2010

Ms. Nancy Finkenkeller
Staff Specialist – Dangerous Goods
United Airlines
1200 East Algonquin Road
Elk Grove, IL 60007

Ref. No. 09-0249

Dear Ms. Finkenkeller:

This responds to your October 27, 2009 letter concerning the applicability of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) to the carriage of a passenger's lithium-ion battery-powered wheelchair or other lithium-ion battery-powered mobility aid as carry-on or checked baggage aboard an aircraft. Specifically, you requested clarification of the applicability of the exceptions for passengers provided in § 175.10. You also asked about an airline's requirement to accept a battery-powered wheelchair or other battery-powered mobility aid in accordance with nondiscrimination requirements under 14 CFR Part 382, Subpart I, specifically, 14 CFR 382.125 and 382.127.

The HMR do not except from regulation (as a Class 9 hazardous material) the carriage of a passenger's lithium-ion battery-powered wheelchair or other lithium-ion battery-powered mobility aid as carry-on or checked baggage under § 175.10. The provisions in § 175.10(a)(15) and (a)(16) that except wheelchairs and other battery-powered mobility aids equipped with nonspillable or spillable batteries as checked baggage are not applicable to a lithium-ion battery-powered wheelchair or other lithium-ion battery-powered mobility aid because, for purposes of the HMR, a lithium-ion battery is not regulated in the same manner as a nonspillable or spillable battery. Moreover, the provisions in § 175.10(a)(17) that except "consumer type" portable electronic devices (e.g., cameras, lap-tops, certain battery-powered medical devices, etc.) powered by lithium batteries do not apply to wheelchairs and other battery-powered mobility aids because we do not consider these items to be portable electronic devices. Note that to mark a battery as "NONSPILLABLE" is a specific requirement for the transportation of nonspillable batteries provided in § 173.159a. No similar marking provision for a lithium-ion battery is in the HMR.

Currently, a wheelchair or other battery-powered mobility aid equipped with a lithium-ion battery must be shipped as a "Battery-powered vehicle, UN3171" and transported in accordance with § 173.220 and other applicable requirements of the HMR (e.g., shipping papers). The battery must be: (1) securely fastened in its holder/compartments (i.e., in the wheelchair); (2) protected in such a manner as to prevent damage and short circuits; and (3) of a type that successfully passed tests in the UN Manual of Tests and Criteria (see § 173.220(d)). If the

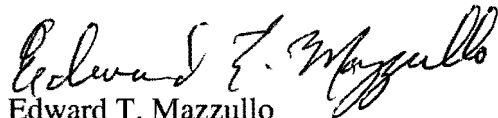
lithium-ion battery is not installed in but either packaged separately from the wheelchair or packaged with the wheelchair, the battery must be transported in accordance with the packaging requirements for lithium-ion batteries in §§ 173.185 and 172.102 of HMR, as appropriate.

Finally, under 14 CFR Part 382, Subpart I, an airline must permit passengers with a disability to bring manual wheelchairs or other mobility aids (e.g., canes) into the aircraft cabin (see 14 CFR 382.121). If a wheelchair or mobility aid cannot, consistent with government requirements (e.g., the HMR), be transported in the cabin, 14 CFR 382.125 requires stowage in a baggage compartment. 14 CFR 382.127 requires an airline to accept battery-powered wheelchairs as checked baggage when conditions do not prohibit doing so and consistent with the requirements of § 175.10(a)(15) and (16). Thus, an airline must permit a passenger to bring a manual wheelchair, or a wheelchair or other battery-powered mobility aid equipped with a nonspillable or spillable battery aboard a passenger aircraft.

Note that the International Civil Aviation Organization (ICAO) Dangerous Goods Panel recently adopted a provision into the ICAO Technical Instructions (ICAO TI) to specify that, with the approval of the airline and under certain conditions, the ICAO TI do not apply to a lithium-ion battery-powered wheelchair or similar mobility aid carried by a passenger as checked baggage aboard an aircraft beginning January 1, 2011. PHMSA intends to propose to adopt a similar provision in a future rulemaking.

I hope this information is helpful. If you have further questions, please contact this office.

Sincerely,



Edward T. Mazzullo

Director

Office of Hazardous Materials Standards

Der Kinderen
§175.10
§175.139a (d)
Air
09-0249

October 27, 2009

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Pipeline and Hazardous Materials Safety Administration
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To Whom It May Concern:

I am writing to request guidance in regard to Lithium-Ion Battery operated wheelchairs. The airline industry is struggling with maintaining compliance with 49CFR as well as 14 CFR part 382 125 and 127 and at times information appears to be conflicting; or in the case of 49 CFR, does not address lithium ion powered mobility aids at all.

49CFR 175.10 (15 and 16) specifically refers to wheelchairs or mobility devices and appears to not incorporate Lithium-Ion battery powered mobility devices.

49CFR 175.10 (15) refers you to 175.139a(d) which states:

Non-spillable batteries are excepted from all other requirements of this subchapter when offered for transportation and transported in accordance with paragraph (c) of this section and the following:

2) For transport by aircraft, when contained in a battery-powered device, equipment or vehicle must be prepared and packaged for transport in a manner to prevent unintentional activation in conformance with §173.159(b)(2) of this Subpart.

2) The battery and outer packaging must be plainly and durably marked "NONSPILLABLE" or "NONSPILLABLE BATTERY." The requirement to mark the outer package does not apply when the battery is installed in a piece of equipment that is transported unpackaged.

No indication is given as to the lithium content of the mobility device battery in these regulations reference is made to "NonSpillable" being indicated on the battery.

49CFR 175.10 a (17) appears to indicate that less than 25 grams is acceptable for lithium powered portable electronic devices as carry on only which would not be applicable to a mobility device:

17) Except as provided in §173.21 of this subchapter, portable electronic devices (for example, watches, calculating machines, cameras, cellular phones, lap-top and notebook computers, camcorders, etc.) containing cells or batteries (including lithium cells or batteries) and spare batteries and cells for these devices, when carried by passengers or crew members for personal use. Each spare battery must be individually protected so as to prevent short circuits (by placement in original retail packaging or by otherwise insulating terminals, e.g., by taping over exposed terminals or placing each battery in a separate plastic bag or protective pouch) and carried in carry-on baggage only. In addition, each installed or spare battery must not exceed the following

(ii) For a lithium-ion battery, an aggregate equivalent lithium content of not more than 8 grams per battery, except that up to two batteries with an aggregate equivalent lithium content of more than 8 grams but not more than 25 grams may be carried.

The safe travel website: http://safetravel.dot.gov/quick_chart.html

Indicates that "One Lithium-Ion Battery, installed in a device (between 8 and 25 grams equivalent lithium content) " is permitted in checked an carry on baggage provide- 1. In checked baggage, ensure that devices remain switched off, either by built-in switch/trigger locks, by taping the activation switch in the "off" position, or by other appropriate measures.

The safe travel website does not indicate in what regulation the information is found in.

Carriers are also bound by 14 CFR 382.127 to ensure that passengers with disability are allowed to bring their mobility device providing it meets 49CFR.

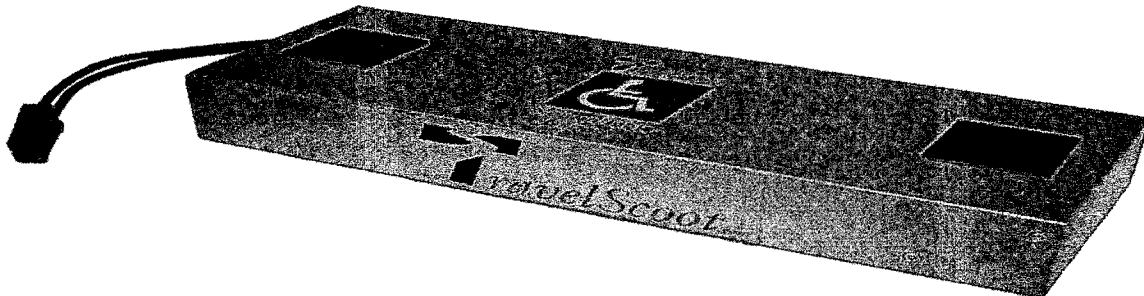
(a) As a carrier, you **must** stow wheelchairs, other mobility aids, or other assistive devices in the baggage compartment if an approved stowage area is not available in the cabin or the items cannot be transported in the cabin consistent with FAA, PHMSA, TSA, or applicable foreign government requirements concerning security, safety, and hazardous materials with respect to the stowage of carry-on items.

Current scenario:

United Airlines has a passenger who is traveling with a Travel Scoot. The Travel Scoot website indicates that the battery is 24grams of lithium content so it falls under the 25 grams. The Travel Scoot web site indicates "DOT regulations for airline transportation prohibit Li-ion batteries with a lithium content of more than 25 gram see http://safetravel.dot.gov/larger_batt.html. TravelScoot's single capacity Li-Ion battery contains 24 gram lithium and is approved for air travel."

Also of concern to United is the note on the Travel Scoot website: "A MANAGEABLE DOWNSIDE IS THAT SPECIAL CARE IS MANDATORY. IT MUST NOT BE EXPOSED TO EXCESSIVE HEAT, IE INSIDE A PARKED CAR FOR A PROLONGED PERIOD OF TIME ON HOT AND SUNNY DAYS, BECAUSE IT COULD CATCH FIRE".

The mobility device may sit in a bag cart on the tarmac at a station in 100 plus degree heat depending on the season.



The battery indicates NonSpillable as the included photo shows. Are Lithium-Ion batteries considered non-spillable and therefore covered under 175.10(a)(15)? According to the President of the Travel Scoot Company Tony Korn, the battery may or may not have a label affixed on the bottom of the battery which includes the lithium content. Also according to Tony the label may have become illegible or not be attached. (Attached to the bottom of the battery makes it difficult for our front line employees to view even if it is there and legible.) Other than 173.159(c) requiring non-spillable batteries to be plainly and durably marked, is there currently guidance on labeling these batteries and is it acceptable for the carrier to use the passenger's assertion that it is less than 25 grams ELC?

Since 14 CFR 382.127a requires air carriers to accept these Lithium-Ion battery powered mobility devices to be transported, is there a safety regulation that would forbid their carriage as checked baggage on aircraft? Are these allowed on air carriers and under what regulations? How is the carrier to determine the ELC content of the battery?

With all the scrutiny on Lithium-Ion batteries United is struggling to ensure that we do the right thing to ensure regulatory compliance and accommodate disabled passengers.

Thank you for your expeditious response.



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