



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

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

APR -7 2010

Ms. L'Gena Prevatt
Manager, Dangerous Goods
Global Green Services, Inc.
104 South Fairfield Drive
Peachtree City, GA 30269

Ref. No.: 10-0034

Dear Ms. Prevatt:

This responds to your February 9, 2010 email 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

Leary
§175.10(a)(15) & (16)
Aircraft
10-0034

Drakeford, Carolyn (PHMSA)

From: Foster, Glenn (PHMSA)
Sent: Monday, February 22, 2010 7:48 AM
To: Drakeford, Carolyn (PHMSA)
Subject: FW: Interpretation request - Wheelchairs/Mobility aids with Lithium ion technology

From: Mazzullo, Ed (PHMSA)
Sent: Tuesday, February 09, 2010 3:34 PM
To: Foster, Glenn (PHMSA)
Cc: Betts, Charles (PHMSA); Leary, Kevin (PHMSA); Posten, Ryan (PHMSA); Drakeford, Carolyn (PHMSA); Workie, Blane (OST); Spollen, Mike (OST)
Subject: RE: Interpretation request - Wheelchairs/Mobility aids with Lithium ion technology

Glenn

Please let Ms. Prevatt know we will look into this, and coordinate the response with OST. Thanks.

Ed

From: Lgena Prevatt [mailto:lgena.prevatt@gg-si.com]
Sent: Tuesday, February 09, 2010 11:37 AM
To: Mazzullo, Ed (PHMSA); Posten, Ryan (PHMSA)
Cc: magdy.el-sabaie@dot.gov; Betts, Charles (PHMSA); Leary, Kevin (PHMSA); Lgena Prevatt
Subject: FW: Interpretation request - Wheelchairs/Mobility aids with Lithium ion technology

Mr. Mazzullo and Mr. Posten,

I'm forwarding the below e-mail to your attention as I have not received any response to my original request and I now understand the original request should have been sent to your attention. I look forward to your response.

Content of the letter is pasted below the signature line for blackberry users.

Regards,

L'Gena Prevatt
Global Green Services, Inc.
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I am very familiar with concerns facing the airline industry related to the safe transport of hazardous materials and have a unique background in passenger issues and how they relate to the hazardous materials regulations as well. A question has recently surfaced within the air carriers about an emerging issue; wheelchairs/mobility aids with lithium ion batteries. The airlines are very concerned with accepting these type devices due to the current scrutiny, regulations, review and publicized issues with lithium batteries; but are also aware the DOT Aviation Consumer Protection Division will scrutinize any air carrier who denies a mobility aid/wheelchair for a passenger with a disability without a specific safety reason. Air carriers may not discriminate on the basis of disability in air travel as dictated in 14 CFR 382.

Lithium batteries in mobility aids/wheelchairs are an example of the technology out pacing the regulations and the air carriers being caught between conflicting regulations. Safety is the primary concern from an air carrier perspective and all air carriers strive for 100% compliance to the regulations; however, this issue also about non-discrimination because for passengers with disabilities the mobility aid is the equivalent of their legs and their independence.

Background:

Air Carriers are required to accept all assistive devices for transport from passengers with disabilities. 14 CFR 382.125(a) – text provide as attachment A.

In addition 14 CFR 382.127 details the specifics for transporting a mobility aid in the cargo compartment and specifically references 49 CFR 175.10(a)(15)and (16).

Are lithium ion batteries in mobility aids defined as non-spillable?

At least one manufacturer (Travel Scoot; www.travelscoot.com) has marked the battery as non-spillable and also states the lithium content is less than 25 grams and therefore, approved for air travel.

From the TravelScoot website <http://www.travelscoot.com/batteries.htm> :

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.

49CFR 175.10(a)(17) specifically requires lithium batteries installed in equipment and spare batteries be in a passengers carry-on bag. In the case of a mobility aid (electric wheelchairs) most of these devices weigh more than the load bearing weight of the coat closet or appropriate FAA stowage location. One option for airlines to attempt to comply would be to remove the battery for carriage on-board the aircraft. However, 14 CFR 382.127(e) states the battery must not be disconnected if it is non-spillable, completely enclosed within a case or compartment integral to the design of the device unless an FAA or PHMSA safety regulation requires it and 49CFR 175.10(a)(15) states the device and battery must be carried as checked baggage. In addition, as you might remember from the COSTHA Annual Forum in Long Beach, getting to the battery in many of these devices is all but impossible even to validate the non-spillable marking, let alone to remove the battery.

The Safe Travel website <http://safetravel.dot.gov/> states: *"If you must carry a battery-powered device in your checked baggage, take steps to prevent inadvertent activation. If you put a portable electronic device in **checked baggage**, you may still do so with the batteries installed in the device."*

Is a mobility aid/wheelchair defined as a 'portable electronic device'?

http://safetravel.dot.gov/quick_chart.html

Also Indicates that *"One Lithium-Ion Battery, installed in a device (between 8 and 25 grams equivalent lithium content) " is permitted in checked and carry-on baggage; provided *"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."**

Concerns/questions for clarification:

- 49CFR currently does not address mobility aids/wheelchairs/assistive devices (POCs) with larger lithium battery compositions. The regulations need to be updated and/or an interpretation provided to ensure carrier compliance with both 14CFR 382 and 49CFR 171-180. ***The NPRM on the transportation of lithium batteries (HM-224F) was issued after this letter was drafted. The NPRM still does not take into account to these type devices and comments will be filed accordingly.***
- Do lithium batteries in mobility aids meet the definition of non-spillable and fall under 49CFR 175.10(a)(15)?
- Is a lithium ion battery in a mobility aid with less than 25 grams ELC permitted for travel in checked baggage?
- If the TravelScoot device is less than 50lbs with a lithium ion battery of less than 25 grams ELC; is it permitted to be transported in the passenger cabin in an FAA approved stowage location?
- How is an air carrier to determine that the lithium ion battery meets the requirement of less than 25 grams for carriage? Take the passengers word? Require an MSDS?
- Based on the current environment, emerging technology advances and current interpretation of the regulations there needs to be a standard marking requirement for all manufacturers of wheelchairs/mobility aids for both non-spillable batteries as well as the new lithium ion technologies.

I would appreciate your review, clarification and/or guidance on these issues.

Sincerely,

L'Gena Prevatt

Global Green Services, Inc.

Manager – Dangerous Goods

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cc: Janet McLaughlin, Office of Hazardous Materials, Federal Aviation Administration
Blane Workie, U.S. DOT Office of the General Council, Aviation Enforcement and Proceedings
Norman Strickman, Director – U.S. DOT Aviation Consumer Protection Division
Michael Spollen, Aviation Industry Analyst - U.S. DOT Aviation Consumer Protection Division

From: Lgena Prevatt

Sent: Thursday, October 29, 2009 5:37 PM

To: christopher.bonanti@faa.gov

Cc: Janet.McLaughlin@faa.gov; blane.workie@dot.gov; Norman.Strickman@dot.gov; mike.spollen@dot.gov; Tom Ferguson; Lgena Prevatt

Subject: Interpretation request - Wheelchairs/Mobility aids with Lithium ion technology

Mr. Bonanti,

Please find a copy of an interpretation request regarding wheelchairs or other mobility aids powered by lithium ion batteries for transport by air. An original signed copy will be sent via the USPS as well.

I appreciate your attention this request.

Regards,

L'Gena Prevatt

Manager – Dangerous Goods

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