U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

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

MAY 0 1 2012

Mr. Peter Lowe
44785 W. Miraflores St.
Maricopa, AZ 85139-8750

Ref. No. 10-0236

Dear Mr. Lowe:

This responds to your letter regarding the transportation of a passenger-provided lithium ion battery-powered mobility aid under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask whether a lithium ion battery designed for rapid removal from a mobility aid (e.g., travel scooter) may be brought onboard an aircraft in a passenger's carry-on baggage and securely stowed in the cabin while the mobility aid sans battery is gate-checked. You state in your letter the lithium ion battery has a watt-hour rating of 280 Wh (24 grams equivalent lithium content). You also state that such batteries are below the maximum watt-hour rating allowed in § 175.10(a)(18) for spare lithium ion batteries used to power portable electronic devices. Additionally, you correctly point out that such passenger-provided spare lithium ion batteries are allowed in carry-on baggage only.

In a final rule published on January 19, 2011 (76 FR 3308; HM-215K), § 175.10(a)(17) of the HMR was revised to authorize lithium ion battery-powered mobility aids (e.g., wheelchair) with provisions similar to the current authorizations for spillable and non-spillable battery-powered mobility aids authorized in § 175.10(a)(15) and (a)(16). Further, the authorization was intended to mirror the provisions in Part 8 of the International Civil Aviation Organization's (ICAO) Technical Instructions that allow carriage of a passenger-provided mobility aid powered by a lithium ion battery. In the January 19, 2011 final rule, we inadvertently required the lithium ion battery to be removed from the mobility aid. This action is inconsistent with provisions under the Air Carrier Access Act of 1986 (ACAA), as amended, and are codified at 14 CFR Part 382.

In a final rule published on July 20, 2011 (76 FR 43510; HM-218F), the requirement to detach a lithium ion battery from a mobility aid was removed from § 175.10(a)(17) of the HMR effective August 19, 2011. This action is consistent with similar provisions in the HMR for other battery types used to power mobility aids and fulfills the intent of the ACAA. Please note that the ICAO's Dangerous Goods Panel recently adopted provisions to allow the removal of a lithium ion battery used to power a mobility aid, if designed

accordingly, and to permit the passenger to bring it aboard in carry-on baggage under certain conditions. We will consider this provision in a future rulemaking action.

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

Sincerely,

T. Glenn Foster

T. Glenn Foster
Chief, Regulatory Review and Reinvention Branch
Standards and Rulemaking Division

Stevens
§ 173.185
Batteries
10-0236

Drakeford, Carolyn (PHMSA)

From: INFOCNTR (PHMSA)
Sent: Tuesday, November 02, 2010 2:57 PM
To: Drakeford, Carolyn (PHMSA)
Cc: DerKinderen, Dirk (PHMSA); Lucas, Adam CTR (PHMSA)
Subject: FW: Carriage of lithium ion batteries less than 25 gm used to power mobility scooters
Attachments: 055.JPG

Hi Carolyn,

Peter Lowe requested we submit his e-mail as a formal letter of interpretation. Mr. Lowe also requested a phone conversation with the person writing his letter. He has already spoken with Andrew in the Info Center at length. He was referred to interp letter 10-0034 and NPRM HM-215K. Mr. Lowe also referenced a previous conversation with Michael Stevens about this issue.

Thanks,
Victoria
202-366-2035

From: Peter Lowe [mailto:plowe@rogers.com]
Sent: Monday, November 01, 2010 9:44 PM
To: INFOCNTR (PHMSA); Stevens, Michael (PHMSA)
Subject: Carriage of lithium ion batteries less than 25 gm used to power mobility scooters

I have Muscular Dystrophy and use a mobility scooter powered by a lithium ion battery. The battery weighs 4.5 lbs. has 24 grams lithium (equivalent) and has 280 watt hours. The battery has a manufacturers sticker indicating 24gms of lithium equiv. content. It was specifically designed to follow the DOT battery regs. I attach a picture of the battery with a coffee cup for physical size and construction reference.

When flying I do my best to convince airlines that the safest place for any lithium ion battery is with the passenger in the cabin. In North America, the only Lithium ion battery powered mobility scooters are made by Travelscoot. These scooters are made of aircraft grade aluminum and weigh 29 lbs. (See Travelscoot.com for pictures). **There are no 'full size' mobility scooters currently manufactured with Lithium ion batteries.**

The problem with the current regulations is that they only deal with 'wet or dry' or more accurately 'spillable or non-spillable' mobility scooter batteries. The 24gm equivalent Lithium ion battery from Travelscoot better fits under the 'Larger (Spare) lithium ion battery category of 8 to 25 gms. lithium equivalent.

Because of the method of attachment of the battery to the Travelscoot (two velcro straps) it should not be transported below wing with checked luggage. It should be driven to the door of the plane and the battery should be removed and carried in the cabin where it can be monitored by the passenger and if necessary the cabin crew. The problem with the proposed harmonization with the U.N. regulations is that the new regulations contemplate a 'full size' scooter where the battery is permanently attached and may be under a protective housing. The requirements of airlines for inspection and position of the scooter in the hold being reported to the officer in charge will be distasteful to the airlines (from a time and expense point of view). In fact shortly after the August 24 Notice of Proposed Rulemaking one airline sent me an email announcing their new policy of carrying no lithium ion powered mobility scooters at all because "there was no way to guarantee that the battery had been disconnected". If the battery of the Travelscoot is removed and carried in the cabin as I suggest, there would be much less push back from the airlines from an operational viewpoint.

In reality there are no mobility scooters made (or imported to North America) that are contemplated in the harmonized regulations. The reality is that 99.9% of the lithium ion battery powered scooters seen by U.S. air carriers will be from Travelscoots.
Today, there are a wide range of policies in practice by U.S. air carriers: (I have flown over 1,000,000 miles in the last 15 years and have incurred all of the following)

Some ban Travelscoots even with sealed lead acid batteries.
Some ban Lithium ion battery powered mobility scooters only (ie Travelscoots).
Some accept the Travelscoot 24gm lithium ion battery as a "spare" larger lithium ion battery when removed from the mobility device.
Others insist on the battery being put below wing, attached or not to the mobility scooter (Because they ignore that the battery is lithium ion and follow the non-spillable rules).

The Travelscoot battery has been tested and passed each test in the U.N. manual of Tests and Criteria. Confirmation from Travelscoot is available (tony@travelscoot.com). I would like it if DOT could issue a bulletin specifically dealing with the Travelscoot battery (as virtually the only Lithium ion battery powering a mobility device in North America) advising that since it contains less than 25 gms. equivalent lithium content it should be removed from the scooter and carried in the cabin and interpreted as falling under the 'Spare larger lithium ion battery rules **even though it is not a 'spare' but the primary battery** . If and when the day comes that a larger lithium ion battery/ mobility scooter is manufactured then the airlines should follow the new regulations with regards to entire scooter stowage with checked baggage and subject to the inspection and captain notification rules.

I am available any time by phone or email to discuss the specifics above and look forward to your review. I have a safe battery and want to be able to travel on all airlines without the difficulties I currently endure. Thank you.

Peter Lowe
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