



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

SEP 20 2019

Joseph Tsiyoni
1415 N. Rose Street
Tempe, AZ 85281

Reference No. 19-0054

Dear Mr. Tsiyoni:

This letter is in response to your April 19, 2019, letter and subsequent phone conversations requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the transportation of battery-powered mobility aid equipment. Specifically, you ask for clarification of requirements in § 175.10 for battery-powered mobility aid equipment.

We have paraphrased and answered your questions as follows:

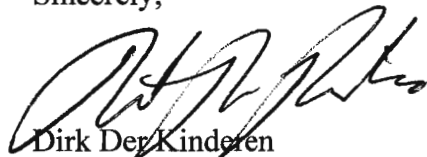
- Q1. You ask whether lithium batteries may be used to operate a scooter “on the ground” that have not been tested according to Part III, Sub-section 38.3 of the UN Manual of Tests and Criteria.
- A1. The HMR do not govern the personal (non-commercial) use of lithium batteries. However, batteries that have not been tested in accordance with the UN Manual of Tests and Criteria are generally not acceptable for transportation in commerce in the United States. Therefore, it is unlikely that a person will have access to a lithium battery that has not been appropriately tested due to transport restrictions.
- Q2. You state that the requirements in § 175.10(a)(15)(v)(B) to fully enclose batteries in a rigid housing is impracticable for “scooters” as the batteries must be available for removal by the user and ask whether these requirements apply to a wheelchair or other mobility aid equipped with a lithium ion battery carried as carry-on baggage.
- A2. The requirements in § 175.10(a)(15)(v)(B) are for wheelchairs or other battery-powered mobility aids equipped with nonspillable batteries. The requirements for wheelchairs or other battery-powered mobility aids equipped with lithium ion batteries are prescribed in § 175.10(a)(17). Section 175.10(a)(17)(ii)(A-D), (iii) and (iv) prescribe the requirements for a lithium ion battery-powered mobility aid designed with a nonremovable battery and

§ 175.10(a)(17)(v)(A-E) prescribe the requirements for a lithium ion battery-powered mobility aid specifically designed to allow its battery to be removed (e.g., collapsible).

- Q3. You ask for an increase in the “size” limit for a lithium ion battery that powers a wheelchair or other mobility aid that is specifically designed to allow the battery to be removed by the user when carried in checked or carry-on baggage.
- A3. Under current HMR, lithium ion batteries designed to be removed from mobility aids may not exceed 300 watt-hours (Wh); a maximum of one spare lithium ion battery not exceeding 300 Wh or two spares each not exceeding 160 Wh each may be carried in carry-on baggage only (see § 175.10(a)(17)(v)). You may petition PHMSA for rulemaking to obtain the requested relief from the § 175.10(a)(17)(v) requirements. An applicant may request PHMSA add, amend, or delete a regulation in the HMR by submitting a petition for rulemaking (See 49 CFR § 106.95–106.130). You may obtain information on the petition for rulemaking application process by contacting PHMSA's Standards and Rulemaking Division at (202) 366-8553. For additional information regarding the transportation of mobility aids aboard aircraft, please visit the FAA Pack Safe Web site (see <http://www.faa.gov/Go/PackSafe>).

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,



Dirk Der Kinderen
Chief, Standards Development Branch
Standards and Rulemaking Division

1415 N. Rose Street
Tempe, Arizona 85281

JOSEPH TSIYONI

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April 19, 2019

Cardez

19-0054

Mr. T. Glenn Foster
Chief, Regulatory Review & Reinvention Branch
Standards & Rulemaking Division. US DOT,
Pipeline & Hazardous Material Safety Administration
1200 New Jersey Ave., SE, Washington DC 20590

Re: Ref No. 18-0156: FOLLOW UP and SUGGESTED CHANGES

Dear Mr. Foster:

Thank you Sir for taking the time to address my concern, which helped to fully follow the laws regarding the use of lithium batteries in scooters for handicap.

Sir, two small issues, and one idea are left over, and I would appreciate your quick help.

A. USING A SCOOTER ON THE GROUND IN THE United States with lithium battery which DID NOT went through U.N. 38.3 certificate for batteries and/or cells:

It is my understanding that such is NOT ALLOWED, means the use of every scooter must be with a lithium battery that has U.N. 38.8 certificates for both, battery and cells.

However, some don't think so.

B. I got confused about your last sentence in last paragraph in page one:

"The exception in § 175.10 apply to shipment of hazardous materials by aircraft only".

1. The exception of 175.10 means no limit to battery size while the battery is non-spillable batteries and ***"Unless fully enclosed in a rigid housing"***. (175.10-a-15-V-B).

However, if the battery is removable, it must be taken to the cabin (with proper notice) BUT MUST BE UNDER 300 WH (about 7.8 Ah)

So, Sir, what did you mean by that sentence quoted in "B"?

B1. The limitation that the battery must be ***"fully enclosed in a rigid housing"*** (175.10-a-15-V-B): IS NOT PRACTICABLE: Only wheelchair have that, but for other scooters, it is impossible for the manufacturer to seal the battery as required, because battery must be available for removal by the user, when he or she needs to change, or replace or to remove before loading the scooter in a car trunk.

IN MY OPINION, dot SHOULD change the law to reflect that ***"or it must be well secured on the scooter which it cannot be removed without special tool used by the user, and all electric connection were removed and outlets properly covered"*** (so that no one else can remove, or it wont be removed by mistake).

That way, it will be much easier for the person with disability to use the scooter without carrying it to the cabin.

FOR ME SIR, IT IS IMPORTANT, and too complicated to carry to the cabin, as otherwise I can check in the scooter like a luggage!!!

DOT has taken that from me, AND I THINK IT IS NOT RIGHT. Every time I want to **check in the scooter, I must remove the battery and carry to the cabin.**

I would like to ask for an exemption for me until and if the law is changed, of course pending making it secured, and covering outlets, etc. It is too difficult otherwise.

C. CHANGE OF LIMITATION OF BATTERY ON AIRCRAFT from 300 WH:

Due to power issue and using larger motor, like 350 W or even, in the future 400W:
The limitation of 300 W limits the battery to 8Ah which is too weak and is good for short range. At least the law should allow the use of battery up to 10 Ah and 36W, i.e.= 360WH instead of under 300

The last two issues will make a huge different in life of people with disability.

I would appreciate your direction and also consideration of the last two suggestions. I think the DOT was caught up with the issue of battery to be secured to the scooter by the manufacturer, which **CAN ONLY BE APPLIED ON ELECTRIC WHEELCHAIR, AS THAT IS TRADITIONALLY.**

Thus, all other scooter with removable battery makes the life of the person with disability difficult.

I hope you can initiate changes and I hope I can be updated.

Thank you very much.

Respectfully

Joseph Tsiyori





U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

April 10, 2019

Mr. Joseph Tsiyoni
1415 North Rose Street
Tempe, AZ 85281

Reference No. 18-0156

Dear Mr. Tsiyoni:

This letter is in response to your December 6, 2018, phone conversations and emails requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to United Nations (UN) testing of lithium ion batteries.

We have paraphrased and answered your questions as follows:

- Q1. You seek confirmation of your understanding that the criteria in Part III, Sub-section 38.3 of the UN Manual of Tests and Criteria, along with the provisions in §§ 173.185 and 175.10 of the HMR, are applicable to the transport of any lithium battery by any mode of transport.
- A1. Your understanding is correct. Shippers of lithium ion batteries or lithium metal batteries must comply with the packaging instructions in § 173.185 of the HMR, which states in paragraph (a) that each lithium cell or battery must be of the type proven to meet the criteria in Part III, Sub-section 38.3 of the UN Manual of Tests and Criteria. Section 173.185(a) further states that lithium cells and batteries are subject to these tests regardless of whether the cells used to construct the battery are of a tested type. Section 173.1(a)(2) states that Part 173 of the HMR includes the requirements to be observed in preparing hazardous materials for shipment by air, highway, rail, or water, or any combination thereof. Therefore, the requirements of § 173.185—more specifically the requirement that all batteries be tested to meet the criteria in Part III, Sub-section 38.3 of the UN Manual of Tests and Criteria—are applicable to all lithium batteries shipped by any mode of transportation.

Section 175.10 provides exceptions for passengers, crewmembers, and air operators transporting lithium batteries aboard aircraft as part of a wheelchair or mobility aid. These lithium batteries are excepted from the requirements of the HMR provided they meet the criteria in Part III, Sub-section 38.3 of the UN Manual of Tests and Criteria, unless approved by the Associate Administrator of Hazardous Materials Safety (See § 175.10(a)(17)(i)). The exceptions in § 175.10 apply to shipments of hazardous materials by aircraft only.

Q2. You ask whether lithium batteries may be used on the ground if they have not been tested according to Part III, Sub-section 38.3 of the UN Manual of Tests and Criteria.

A2. The HMR do not govern the use of lithium batteries. However, batteries that have not been tested according to the UN Manual of Tests and Criteria are generally not acceptable for transport in the United States according to the HMR.

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,

A handwritten signature in cursive script, reading "T. Glenn Foster". The signature is written in black ink and is positioned above a horizontal dashed line.

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