



U.S. Department  
of Transportation

1200 New Jersey Avenue SE  
Washington, DC 20590

**Pipeline and Hazardous  
Materials Safety  
Administration**

JUL 31 2015

Mr. Gene Sanders  
Manager  
W.E. Train Consulting  
8710 W. Hillsborough Ave. #112  
Tampa, FL 33615

Reference No. 15-0019

Dear Mr. Flaherty:

This is in response to your January 27, 2015 e-mail requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the T.7 overcharge testing requirements for lithium batteries. You note that the United Nations Manual of Tests and Criteria, 5<sup>th</sup> Revised Edition in section 38.3.3(d) provides that “batteries not equipped with overcharge protection that are designed for use only in a battery assembly, which affords such protection, are not subject to the requirements of this test”. Your questions are paraphrased and answered as follows:

Q1. Must batteries that do not have overcharge protection, and are designed for use only in a battery assembly that does not have overcharge protection, pass test T.7 before being offered for transport as batteries?

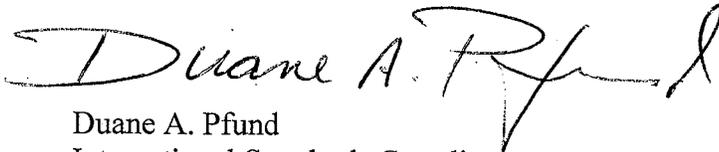
A1. Yes. The exception from test T.7 applies only to batteries that do not have overcharge protection, and are designed for use only in a battery assembly which affords such protection. Batteries that do not have overcharge protection and are designed for use in a battery assembly that does not have overcharge protection must successfully pass test T.7 prior to being offered for transportation.

Q2. For a battery assembly that does not have overcharge protection and is itself assembled from batteries that do not have overcharge protection, would it be compliant with the UN Manual of Tests and Criteria and the HMR if only the battery assembly passed test T.7 even though the batteries in the battery assembly did not pass test T.7?

A2. Based on the information provided in your specific scenario, batteries without overcharge protection intended for installation in a battery assembly that also does not have overcharge protection, both the batteries and the battery assembly are subject to test T.7.

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

Sincerely,

A handwritten signature in cursive script that reads "Duane A. Pfund". The signature is written in dark ink and is positioned above the typed name and title.

Duane A. Pfund  
International Standards Coordinator  
Standards and Rulemaking Division

**Goodall, Shante CTR (PHMSA)**

Webb  
173.185(a)(1)  
Lithium Cells & Batteries  
15-0019

**From:** Betts, Charles (PHMSA)  
**Sent:** Tuesday, January 27, 2015 4:50 PM  
**To:** Goodall, Shante CTR (PHMSA)  
**Subject:** FW: Interpretation Requested re Lithium Battery UN testing  
**Attachments:** PHMSA request for interpretation 27jan2015.pdf

Shante –  
Please log and assign to a Specialist for response.

Thanks,  
Charles

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**From:** Gene Sanders of W.E. Train Consulting [<mailto:Gene@WEtrainConsulting.com>]  
**Sent:** Tuesday, January 27, 2015 4:46 PM  
**To:** Betts, Charles (PHMSA)  
**Cc:** Stevens, Michael (PHMSA)  
**Subject:** Interpretation Requested re Lithium Battery UN testing

Dear Mr. Betts,

Your assistance is requested in understanding the requirements of 49CFR 173.185(a)(1), which references UN test requirements for lithium batteries.

The United Nations Manual of Tests and Criteria, 5<sup>th</sup> revised edition, related to test 7 (T.7), overcharge testing of rechargeable batteries, says in 38.3.3(d) that “batteries not equipped with overcharge protection that are designed for use only in a battery assembly, which affords such protection, are not subject to the requirements of this test”. I have two questions related to this exception.

1. Must batteries that do not have overcharge protection, and are designed to go into a battery assembly that also does not have overcharge protection, pass test T.7 before being offered for transport as batteries?
2. For a battery assembly that does not have overcharge protection, assembled from batteries that themselves do not have overcharge protection, in lieu of the unassembled batteries passing test T.7, would it be compliant to have the entire battery assembly pass test T.7, before being offered for transport as a battery assembly?

For your convenience, this request for interpretation is also attached on letterhead as a PDF document. I appreciate your assistance and look forward to your reply.

Sincerely,  
Gene Sanders  
Manager, W.E. Train Consulting  
[Gene@WEtrainConsulting.com](mailto:Gene@WEtrainConsulting.com)  
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**home office: (813) 855-3855**

**mobile phone: (412) 779-5151**



27 January 2015

Charles Betts, Director  
U.S. Department of Transportation  
PHMSA, Office of Hazardous Materials Standards  
Attn: PHH-10, East Building  
1200 New Jersey Avenue, SE  
Washington, DC 20590-0001 USA

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I appreciate your assistance and look forward to your reply.

A handwritten signature in cursive script, appearing to read "Gene Sanders", is written over the typed name.

Gene Sanders  
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