



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue SE
Washington, DC 20590

JUL 07 2015

Mr. George A. Kerchner
Senior Regulatory Analyst
Wiley Rein LLP
1776 K Street, NW
Washington, DC 20006

Reference No. 14-0246

Dear Mr. Kerchner:

This is in response to your December 22, 2014 letter and December 23, 2014 e-mail requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) regarding packaging provisions that prescribe short circuit protection for lithium cells and batteries transported for disposal or recycling. Further, you ask whether damaged or defective lithium cells and batteries contained in equipment in conformance with requirements prescribed in § 173.185(f) are authorized for transport in commerce under the HMR. In your letter, you state that recent revisions to § 173.185 may not align with the 18th revised edition of the United Nations Recommendations on the Transport of Dangerous Goods (UN Model Regulations) and Amendment 37-14 of the International Maritime Dangerous Goods Code (IMDG Code). We have paraphrased your questions and answered them in the order you provided.

- Q1. Please confirm that the type of short circuit protection, if any, required under § 173.185(d) for packages of lithium cells and batteries intended for disposal or recycling would include, but is not limited to, the short circuit protection requirements for packages prescribed in Packing Instruction P909 of the IMDG Code and the UN Model Regulations.
- A1. Your understanding is correct. Section 173.185(d) provides exceptions for packages of lithium cells and batteries intended for disposal or recycling. However, the conditions in § 173.185(b), such as short circuit protection, continue to apply. Further, the detailed short circuit protection methods prescribed in Packing Instruction P909 of the IMDG Code and the UN Model Regulations satisfy the short circuit protection requirements of § 173.185(b) of the HMR.

The HMR require lithium cells or batteries, including lithium cells or batteries packed with, or contained in, equipment, to be packaged in a manner to prevent short circuits, movement within the outer package and accidental activation of the equipment. Lithium cells or batteries must be placed in non-metallic inner packagings that

completely enclose the cells or batteries, and separate the cells or batteries from contact with equipment, other devices, or conductive materials (e.g., metal) in the packaging (§ 173.185(b)).

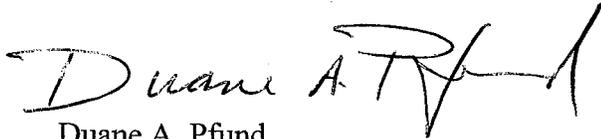
Packing Instruction P909 contains similar requirements and describes methods to prevent short circuits and a dangerous evolution of heat including: individual protection of the battery terminals, inner packaging to prevent contact between cells and batteries, batteries with recessed terminals or the use of non-conductive, non-combustible cushioning material to fill empty space between cells and batteries in the packaging.

Q2. Please confirm that damaged or defective lithium cells and batteries contained in equipment in conformance with requirements prescribed in § 173.185(f) are authorized for transport in commerce under the HMR.

A2. The answer is yes, provided the applicable conditions prescribed in § 173.185(f)(1) – (f)(3) are met.

I hope this satisfies your request. Please contact us if we can be of further assistance.

Sincerely,

A handwritten signature in black ink that reads "Duane A. Pfund". The signature is stylized with a large, sweeping "D" and a long horizontal line extending to the right.

Duane A. Pfund
International Standards Coordinator
Standards and Rulemaking Division

Goodall, Shante CTR (PHMSA)

*Edmonson
173.185(d)
Lithium Cell & Batteries*

14-0246

From: Betts, Charles (PHMSA)
Sent: Tuesday, December 23, 2014 10:09 AM
To: 'GKerchner@wileyrein.com'; PHMSA HM InfoCenter; Goodall, Shante CTR (PHMSA)
Cc: Leary, Kevin (PHMSA); Dodd, Alice (PHMSA)
Subject: Re: Request for Interpretation Letter on Shipping Lithium Batteries for Disposal or Recycling and Damaged/Defective Lithium Batteries Contained in Equipment

Shante-

Please log and assign for handling.

Thanks,
Charles

From: Kerchner, George [<mailto:GKerchner@wileyrein.com>]
Sent: Tuesday, December 23, 2014 09:13 AM Eastern Standard Time
To: PHMSA HM InfoCenter
Cc: Leary, Kevin (PHMSA); Betts, Charles (PHMSA)
Subject: Request for Interpretation Letter on Shipping Lithium Batteries for Disposal or Recycling and Damaged/Defective Lithium Batteries Contained in Equipment

Attached is a request for an interpretation letter on PHMSA's HM-224F lithium battery final rule related to the transport of damaged/defective lithium batteries and short circuit protection requirements for lithium batteries shipped for disposal or recycling.

The issues addressed in the letter impact the new lithium battery regulations that take effect on February 6, 2015. Therefore, your immediate attention to this matter is greatly appreciated.

Thank you.

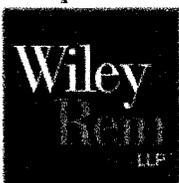


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December 22, 2014

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Re: Request for Interpretation on Shipping Lithium Batteries for Disposal or Recycling; Damaged/Defective Lithium Batteries Contained in Equipment

I am writing for an interpretation on two issues associated with PHMSA's HM-224F lithium battery final rule published August 6, 2014 related to the transport of damaged/defective lithium batteries and short circuit protection requirements for lithium batteries shipped for disposal or recycling.

The first issue relates to the type of packaging and short circuit protection required for lithium cells and batteries shipped for disposal or recycling in accordance with 49 CFR 173.185(d) in the U.S. hazardous materials regulations. This new provision has caused some uncertainty regarding what packaging can be used to comply with the general short circuit protection requirements and how it aligns with the international dangerous goods regulations. For example, the new Packing Instruction P909 from the 18th Revised Edition of the UN Model Regulations and 2014 Edition of the IMDG Code authorizes the following packaging to prevent short circuits in transport:

1. *Cells and batteries shall be designed or packed to prevent short circuits and the dangerous evolution of heat.*
2. *Protection against short circuits and the dangerous evolution of heat includes, but is not limited to:*
 - *individual protection of the battery terminals,*
 - *inner packaging to prevent contact between cells and batteries,*
 - *batteries with recessed terminals designed to protect against short circuits, or*
 - *the use of a non-conductive and non-combustible cushioning material to fill empty space between the cells or batteries in the packaging.*



December 22, 2014

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We assume it was PHMSA's intent when it published the HM-224F final rule to authorize the type of short circuit protection listed above for lithium cells and batteries shipped for disposal or recycling in accordance with 49 CFR 173.185(d). We believe this type of short circuit protection reflects the "input of stakeholders representing the manufacturing, and shipping industries, environmental concerns and battery recyclers" who filed comments on the HM-224F final rule. (See 79 Fed. Reg. 46031.) The packaging provides adequate protection during transport to prevent short circuits and reduces the possibility of damage to the cells and batteries that could lead to an incident. In addition, the packaging would harmonize the U.S. hazardous materials regulations with the IMDG Code, UN Model Regulations and Transport Canada's proposed amendments to the TDG Regulations. Harmonization of these regulations facilitates the movement of waste lithium cells and batteries to, from and within the U.S.

Therefore, we request confirmation from PHMSA that the type of short circuit protection authorized under the new 49 CFR 173.185(d) provision includes, but is not limited to, those examples listed above from Packing Instruction P909 of the 2014 IMDG Code and UN Model Regulations.

The second issue relates to whether damaged or defective lithium cells and batteries contained in equipment are authorized for transport in accordance with the new provision found at 49 CFR § 173.185(f) of the U.S. hazardous materials regulations. We understand it was PHMSA's intent to authorize shipments of damaged or defective lithium cells and batteries contained in equipment in order to harmonize the U.S. hazardous materials regulations with similar provisions and Packing Instruction P908 in the 2014 IMDG Code, 18th Revised Edition of the UN Model Regulations and Transport Canada's proposed amendments to the TDG Regulations.

Therefore, we request confirmation from PHMSA that damaged or defective lithium cells and batteries contained in equipment are authorized for transport in accordance with the new 49 CFR § 173.185(f) provision.

Thank you for your assistance.

Sincerely,

George A. Kerchner

George A. Kerchner