



U.S. Department  
of Transportation

Pipeline and Hazardous Materials  
Safety Administration

NOV 5 2009

1200 New Jersey Ave., SE  
Washington, DC 20590

Mr. George Kerchner  
Wiley Rein LLP  
1776 K Street NW  
Washington, DC 20006

Ref. No.: 09-0188

Dear Mr. Kerchner:

This responds to your August 18, 2009 email requesting clarification of our August 7, 2009 letter (Ref. No. 09-0143) in which we discussed the applicability of the Hazardous Materials Regulations (HMR; 49 CFR parts 171-180) to lithium batteries. Specifically, you ask for a clarification of our response concerning the applicability of the United Nations design type testing requirements to lithium batteries transported under the materials of trade exception.

You reference a letter written to Ms. Erica Jenkins, Aero Vironment, Inc. (Reference No. 02-0314; June 20, 2003) that stated lithium batteries qualify for the materials of trade exception. That is correct. However, as we stated in our August 18, 2009 letter, in order to meet the provisions of the materials of trade exception, lithium batteries must be of a type proven to meet the criteria of Class 9 by testing in accordance with the UN Manual of Tests and Criteria. The June 2003 letter does not mention the size of the batteries transported, nor does it mention UN design type testing. The letter merely confirms the applicability of the materials of trade exception to the transport of lithium batteries. At that time, depending on the size of the cell or battery the HMR waived many requirements including UN design type testing. Effective October 1, 2009, all lithium batteries must be of a type proven to meet the criteria of Class 9 by testing in accordance with the UN Manual of Tests and Criteria.

I trust this satisfies your inquiry. If we can be of further assistance, please contact us.

Sincerely,

Charles E. Betts  
Chief, Standards Development  
Office of Hazardous Materials Standards

Leary  
 §173.185  
 Lithium Batteries  
 09-0188

**Drakeford, Carolyn (PHMSA)**

**From:** Betts, Charles (PHMSA)  
**Sent:** Tuesday, August 18, 2009 8:19 AM  
**To:** Drakeford, Carolyn (PHMSA)  
**Cc:** Gorsky, Susan (PHMSA); Leary, Kevin (PHMSA)  
**Subject:** FW: One Problem with Interp Letter  
**Importance:** High

**From:** Kerchner, George [mailto:GKerchner@wileyrein.com]  
**Sent:** Tuesday, August 18, 2009 8:04 AM  
**To:** Betts, Charles (PHMSA)  
**Cc:** Gorsky, Susan (PHMSA); Leary, Kevin (PHMSA)  
**Subject:** RE: One Problem with Interp Letter

Charles -

Thanks for the response.

I'm really missing the logic here. Lithium batteries are listed in the hazardous materials table as Class 9. Therefore, when shipping prototype or low production batteries they are offered as Class 9 hazardous materials. No UN testing is conducted on these batteries.

Attached is a 2002 interpretation letter (Ref. No. 02-0314) from your office that confirms lithium batteries do qualify for the MOT exception. The batteries referred to in this letter are being transported for testing and evaluation so it is assumed they are prototype batteries. I can assure you there are many companies that have interpreted this letter to mean untested prototype and low production batteries qualify for the MOT exception.

I would like to request that your office take a second look at the question in my letter and reconsider your answer.

Thank you.

George

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**From:** charles.betts@dot.gov [mailto:charles.betts@dot.gov]  
**Sent:** Tuesday, August 18, 2009 7:14 AM  
**To:** Kerchner, George  
**Cc:** susan.gorsky@dot.gov; Kevin.Leary@dot.gov  
**Subject:** RE: One Problem with Interp Letter  
**Importance:** High

Good morning George,

Sorry for the delay in getting back to you. Section 173.6(a) states, in part, that "A material trade is limited to the following: A Class 3, 8, 9, Division 4.1, 5.1, 5.2, 6.1 or ORM-D..." Therefore, as previously stated in the interpretation letter [Ref. No. 09—0143] in order to meet the provisions of the materials of trade exceptions, lithium batteries must be of a type proven to meet the criteria of a Class 9 by testing in accordance with the UN Manual of Tests and Criteria.

8/18/2009

Regards,  
Charles

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**From:** Kerchner, George [mailto:GKerchner@wileyrein.com]  
**Sent:** Thursday, August 13, 2009 1:11 PM  
**To:** Betts, Charles (PHMSA)  
**Cc:** Leary, Kevin (PHMSA)  
**Subject:** One Problem with Interp Letter

Charles -

Thank you for providing the attached interp letter. All of the answers provided by PHMSA are consistent with my understanding of the regs except A3.

It appears to be PHMSA's position that lithium batteries transported under the Materials of Trade provision are subject to UN testing. That is inconsistent with the Materials of Trade provision in 173.6 that states that "*When transported by motor vehicle in conformance with this section, a material of trade (see § 171.8 of this subchapter) is not subject to any other requirements of this subchapter besides those set forth or referenced in this section.*" If these materials are "*not subject to any other requirements of this subchapter*" why would UN testing be required?

In addition, if Materials of Trade are "*not subject to any other requirements of this subchapter*" why would the requirements in Special Provision 29 apply?

Please call me at your earliest convenience (202.719.4109) to discuss this in more detail.

Thanks.

George

**George A. Kerchner**  
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8/18/2009



U.S. Department  
of Transportation

Pipeline and Hazardous Materials  
Safety Administration

1200 New Jersey Ave., SE  
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AUG 7 2009

Mr. George Kerchner  
Wiley Rein LLP  
1776 K Street NW  
Washington, DC 20006

Ref. No.: 09-0143

Dear Mr. Kerchner:

This is in response to your June 18, 2009 letter concerning the applicability of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) to shipments of small lithium metal batteries (< 2.0 grams lithium content) and small lithium ion batteries (< 8 grams equivalent lithium content) sold over the counter at retail locations. Your questions are paraphrased and answered below:

Q1. Are small lithium batteries assembled at retail locations and sold over the counter to customers for personal use subject to the testing requirements outlined in Section 38.3 of the UN Manual of Tests and Criteria?

A1. As specified in § 171.1, the HMR govern the transportation of hazardous materials in intrastate, interstate and foreign commerce. The term "in commerce" means in furtherance of a commercial enterprise. Therefore, hazardous materials that are sold to customers for personal, non-commercial use and transported by such persons in their personal vehicles are not subject to the HMR. However, if the transportation is in commerce the lithium batteries are subject to the HMR. In that case, each battery must be of a type proven to meet each of the tests in 38.3 of the UN Manual of Tests and Criteria prior to transportation.

Q2. Can small lithium batteries transported to customers in personal or company vehicles qualify for the materials of trade exceptions?

A2. Yes. The materials of trade definition in § 171.8 includes a private motor carrier transporting hazardous materials in direct support of a principal business that is other than transportation by motor vehicle. The materials of trade exceptions in § 173.6 permit Class 9 materials including lithium batteries.

Q3. Do the testing requirements of the UN Manual of Tests and Criteria apply to lithium batteries transported as materials of trade?



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Leary  
§175.10(a)  
§173.185  
Lithium Batteries  
09-0143

June 18, 2009

George Kerchner  
202.719.7049  
gkerchner@wileyrein.com  
~~4019~~

DELIVERED VIA EMAIL

Mr. Edward Mazzullo  
Pipeline and Hazardous Materials Safety Administration  
U.S. Department of Transportation  
1200 New Jersey, Avenue, SE  
Washington, D.C. 20590

Re: Request for Interpretation on Lithium Batteries

Dear Mr. Mazzullo:

October 1, 2009 is specified as the effective date for mandatory testing of "small" lithium ion and lithium metal cells and batteries pursuant to Special Provision 188 in the U.S. hazardous materials regulations. I have several questions regarding how the UN lithium battery testing requirements apply to "small" batteries assembled and sold at retail locations and carried onboard aircraft.

Some retailers may assemble a limited number of small lithium ion and lithium metal batteries for their customers. The retailers never offer these small batteries for transportation to carriers such as UPS or FedEx. Instead, they are sold over the counter or delivered in company or personal vehicles to customers. It is our understanding that these small batteries are not subject to the UN testing requirements because they are never offered for transportation and/or qualify as Materials of Trade pursuant to 49 C.F.R. 173.6. My questions related to these issues are listed below.

- (a) Are small lithium batteries assembled at retail locations and sold over the counter subject to the UN testing requirements?
- (b) Do small lithium batteries transported to customers in personal or company vehicles qualify for the Materials of Trade exception in 49 C.F.R. 173.6?
- (c) If the answer to question (b) is yes, which if any of the UN testing requirements are applicable to these batteries?

The exceptions for passengers in 49 C.F.R. § 175.10(a) states "This subchapter does not apply to the following hazardous materials when carried by aircraft passengers



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

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JUN 20 2003

Ms. Erica Jenkins  
Logistics Coordinator  
AeroVironment Inc.  
4685-3H Industrial Street  
Simi Valley, California 93063

Ref. No.: 02-0314

Dear Ms. Jenkins:

This is in response to your letter regarding the use of the material of trade exception as it applies to highway shipments of lithium cells and batteries under the Hazardous Materials Regulations (HMR; 49 CFR parts 171-180). Your questions are paraphrased and answered as follows:

- Q1:** Would the lithium batteries qualify for the MOTs exception, while being transported to various locations for testing in solar powered aircraft and small-unmanned air vehicles?
- A1:** The answer is yes. The materials of trade definition in § 171.8 includes a private motor carrier transporting hazardous materials in direct support of a principal business that is other than transportation by motor vehicle.
- Q2:** Would the lithium batteries qualify for the MOTs exception, while they are transported between AeroVironment facilities for testing and modifications?
- A2:** The answer is yes. One criteria for a MOT is that a hazardous material is transported by a private carrier in direct support of its principal business which is not transportation by motor vehicle. Therefore, a hazardous material transported between a company's facilities for purposes of quality control testing meets the definition of MOT. In addition, prototype lithium cells and batteries may be transported for performance testing (i.e., product evaluation) in connection with development programs when transported in conformance with § 173.185(j).
- Q3:** You asked at what point does your hazardous material compliance liability terminate, after your customers accept delivery of lithium batteries at one your facilities?



020314

173.6



AeroVironment Inc.  
4685-3H Industrial Street  
Simi Valley, CA 93063

Referford  
§ 173.6  
MOT

Lithium Batteries  
02-0314

December 6, 2002

Mr. Edward Mazzullo  
Director, Office of Hazardous Materials Safety  
U.S. DOT/ RSPA (DHM-10)  
400 7th Street S.W.  
Washington, DC 20590-0001

Dear Mr. Mazzullo,

Subject: Need confirmation on 49 CFR (173.6 and 173.7)

The purpose of this letter is to obtain clarification on a few issues that we have some immediate concerns about. The primary material in question is UN3090 (Lithium Batteries), class 9, PGII, P.I. 903. I have contacted the DOT Office of Hazardous Materials Safety and was advised to direct this letter to your attention. In an effort to eliminate confusion on the interpretation of the two regulations I am requesting written confirmation on the *three* issues that are listed below.

**Issue One: Would the Lithium batteries UN3090 be considered "Materials of Trade" as stated in CFR49 173.6 while we are transporting them to various sites for testing?** We are a design and development company that specializes in solar powered aircraft and small-unmanned air vehicles. Our primary business relies on government contracts with both NASA and the Department of Defense (DOD). Our clients require us to go to various sites to conduct flight testing which is essential to the continuing growth and success of our business.

**Issue Two: Would these lithium batteries be considered "Materials of Trade" as stated in CFR49- 173.6, while we are transporting them between AeroVironment facilities for testing and modifications?** The logistical location of our facilities requires us to transport these batteries between facilities during different phases of research, development, and production. There are three buildings that are close in proximity to one another with an estimated 6 miles between them and two with approximately seventy miles separating them. Again, this is another vital function of our business and is essential for the time restraints that NASA and the DOD place upon us.

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