



U.S. Department of Transportation  
**Pipeline and Hazardous Materials  
Safety Administration**

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

FEB 23 2011

Mr. Thomas Affolter  
Swatch Group  
Bözingenstrasse 9  
CH-2502 Biel

Ref. No.: 10-0080

Dear Mr. Affolter:

This is in response to your letter dated March 18, 2010 concerning the aircraft quantity limitations of the Hazardous Material Regulations (HMR; 49 CFR Parts 171-180) applicable to small primary (non-rechargeable) lithium batteries contained in equipment. In your letter, you made several references to a document produced by the Pipeline and Hazardous Materials Safety Administration titled "Shipping Batteries Safely by Air; What you need to know" (the attached guide). Your questions have been paraphrased and answered as follows:

Q1. You referenced an excerpt from page 11 of the guide that reads "Primary (non-rechargeable) lithium cells and batteries are forbidden for transport aboard passenger carrying aircraft." May primary lithium cells and batteries that conform to § 172.102(c), Special Provision 188 be transported as cargo aboard passenger carrying aircraft without additional markings or labels provided the packages contain less than 5 kg net weight of lithium batteries?

A1. The statement on page 11 of the guide refers to primary lithium cells and batteries packaged without equipment as illustrated on page 10 of the guide. Primary lithium cells and batteries are forbidden for transport aboard passenger carrying aircraft regardless of quantity.

Primary lithium cells or batteries packed with or contained in equipment are permitted for transport aboard a passenger carrying aircraft provided the equipment and the cell(s) or battery(ies) conform to the following provisions and the package contains no more than the number of lithium cells or batteries necessary to power the intended piece of equipment:

1. The lithium content of each cell, when fully charged, is not more than 5 grams.
2. The aggregate lithium content of the anode of each battery, when fully charged, is not more than 25 grams.
3. The net weight of lithium batteries does not exceed 5 kg (11 lbs).

Q2. An excerpt from page 23 of the guide reads "Batteries packed in equipment may not exceed certain weight limits: Lithium batteries in equipment: 5 kg net (passenger air/rail), 35 kg net

(cargo air).” Do the HMR impose aircraft quantity limits for lithium cells or batteries contained in equipment prepared for transport in accordance with the applicable provisions of Special Provision 188?

A2. The quantity limits specified on page 23 of the guide refer to packages containing lithium cells and batteries that are not prepared in accordance with the applicable provisions of Special Provision 188. Quantity and weight limits for packages prepared in accordance with Special Provision 188 are imposed as a condition of the exception. For example, packages containing primary lithium batteries contained in equipment are excepted from certain marking requirements provided the package contains 5 kg (11 lb) net weight or less of lithium cells or batteries and the package contains no more than the number of lithium cells or batteries necessary to power the piece of equipment.

I hope this answers your inquiry. If you have further questions, please do not hesitate to contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read "Ben Supko", with a long horizontal flourish extending to the right.

Ben Supko  
Acting Chief, Standards Development Branch  
Standards and Rulemaking Division

Enclosure

Leary  
§173.185  
§172.102 SP188  
Lithium Batteries  
10-0080

Office of Hazardous Materials Standards  
Pipeline and Hazardous Materials Safety Administration  
Attn: PHH10  
U.S. Department of Transportation  
East Building, 2nd Floor  
1200 New Jersey Ave., SE  
Washington, DC 20590

Bienne, 18th of March 2010

Dear Madam, dear Sir,

In accordance with 49 CFR 105.20, we kindly ask for a DOT formal guidance regarding the transport of small lithium cells on their own or contained in equipment (in our case : wrist watches).

After consulting the DOT Safe Travel information document "Shipping batteries safely by air" that is available on PHMSA internet site (no date on the document, but the reference PHH50-0107-0109 on its last page), we need the following two clarifications on this document :

**Question 1. Page 11:** "Primary (non-rechargeable) lithium batteries and cells are forbidden for transport aboard passenger carrying aircraft as cargo."

From our understanding, this is not completely true because according to Special Provision 188 of CFR 49, 172.02, it is indicated under (a)(2) that:

"The provisions of paragraph (a)(1) do not apply to packages that contain 5 kg (11 pounds) net weight or less of primary lithium batteries ..."

We understand that "Small lithium cells and batteries" conforming to all provisions of Special Provision 188 can be transported as cargo in passenger carrying aircrafts, provided that the packages contain less than 5 kg net weight of lithium batteries. Furthermore these packages of course do not need the label "PRIMARY LITHIUM BATTERIES—FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT".

Can you please confirm that our understanding is correct?

**Question 2. Page 23:** "Batteries packed in equipment may not exceed certain weight limits: Lithium batteries in equipment: 5kg net (passenger air/rail), 35kg net (cargo air)."

From our understanding, these two limits (except for rail) are drawn from the packing instruction PI 970 from IATA 51st edition, 2010, for fully regulated (Section I of PI 970) lithium batteries or cells contained in equipment.

However it is not explained in your document that the 35 kg net limit for cargo air is not applicable for excepted lithium batteries, i.e. for batteries shipped in conformity with Section II of PI 970.

From our understanding, small "excepted" lithium cells contained in equipment are not forbidden when transported as cargo in passenger aircraft in the US and there is no weight limit in this case or in the case of transport by air cargo for these cells.

Can you please confirm that our understanding is correct?

Thank you for your time and consideration.

Best regards,



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