



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

1200 New Jersey Avenue, SE
Washington, DC 20590

MAY 19 2011

Mr. Tom Ferguson
Technical Consultant
Currie Associates, Inc.
10 Hunter Brook Lane
Queensbury, NY 12804

Ref. No.: 11-0074

Dear Mr. Ferguson:

This responds to your March 29, 2011 letter concerning the aircraft quantity limitations of the Hazardous Material Regulations (HMR; 49 CFR Parts 171-180) applicable to lithium ion batteries contained in equipment. Specifically, you asked if § 172.102(c), special provision A104 limits the total net quantity of lithium ion batteries contained in equipment to 5kg (11 lbs) per package for transport aboard passenger aircraft.

Yes, the HMR limit the net quantity of lithium batteries contained in equipment to 5 kg (11 lbs) per package when transported aboard passenger aircraft. This per package quantity limit is consistent with the quantity limits for lithium ion batteries shipped alone and lithium ion batteries packed with equipment.

I hope this answers your inquiry. If you need additional assistance, please contact the Standards and Rulemaking Division.

Sincerely,

A handwritten signature in black ink that reads "Ben Supko".

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



CURRIE ASSOCIATES, INC.
THE GLOBAL COMPLIANCE PROFESSIONALS

Leary
 § 172.102. SPA104
 Special Provisions
 11-0074

U.S. Department of Transportation
 PHMSA Office of Hazardous Material Standards
 Attn: PHH-10
 East Building
 1200 New Jersey Avenue, SE.
 Washington, D.C.

Re: Letter of Interpretation, Secondary Lithium Ion Batteries in Equipment

Dear Sir/Madam,

On behalf of a major supplier of lithium ion-powered equipment, we are requesting a Letter of Interpretation.

Question

Does 49 CFR, §172.102, Special Provision A104 limit the total net quantity of all batteries contained in equipment to no more than 5 kg per package for passenger aircraft?

Background

Lithium battery transport has been an important topic during the last 5+ years and significant changes have been made to both domestic and international transport requirements during that span. As a result, harmonization of global regulations is often compromised.

The requirements of 49 CFR, Subchapter C, Part 172, §172.102, Special Provision A104 states:

A104 The net weight of secondary lithium batteries or cells contained in equipment may not exceed 5 kg (11 pounds) in packages that are authorized aboard passenger carrying aircraft.

The International Civil Aviation Organization Technical Instructions for the Safe Transportation of Dangerous Goods by Air (ICAO TI) 2010-2011 Edition provides guidance as to the amount of lithium ion batteries contained in equipment in Packing Instruction 967. The limitation is detailed in the following table:

Contents	Net quantity per piece of equipment (Section I)	
	Passenger	Cargo
Lithium ion batteries contained in equipment	5 kg	35 kg

In comparing the two citations noted above, ICAO clearly indicates by reference in the table that the net quantity *per piece of equipment* is limited to 5 kg. The ICAO Packing Instruction does not limit the number of pieces of equipment per package. Therefore it is possible to have more than 1 piece of equipment per package. Per PI 967, it appears that a single package may contain up to 40 kg or more (for example) of lithium ion batteries contained in equipment as long as each piece of equipment does not contain more than 5 kg each.

In 49 CFR, Special provision A104, the text is slightly different. It indicates the net weight of lithium ion batteries contained in equipment may not exceed 5 kg in packages intended for passenger aircraft. While the wording is slight, the impact is significant. PHMSA appears to indicate the net weight limitation to be per piece of equipment **and** per package. Thus if a piece of equipment contained a 4 kg lithium ion battery (using the previous example), then only 1 piece of equipment would be permitted per package and be eligible for transport by passenger aircraft.

Guidance on this question would be greatly appreciated.

Sincerely,

A handwritten signature in cursive script, appearing to read "Tom Ferguson", followed by a horizontal line.

Tom Ferguson