



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**  
AUG - 2 2004

400 Seventh St., S.W.  
Washington, D.C. 20590

Mr. George A. Kerchner  
Manager  
CapAnalysis  
1299 Pennsylvania Ave., N.W.  
Washington, DC 20004

Ref No.: 04-0154

Dear Mr. Kerchner:

This is in response to your letter requesting clarification of provisions for lithium and lithium ion batteries shipped internationally in accordance with the International Air Transport Association's (IATA) standards, International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions) and the International Maritime Dangerous Goods (IMDG) Code.

Specifically you ask whether all lithium and lithium ion batteries, including those containing not more than 2 grams of lithium metal and not more than 8 grams of equivalent lithium content are subject to the United Nations Manual of Tests and Criteria, Part III, Sub-section 38.3.

The answer is yes. The IATA regulations do not have official standing under the U.S. Hazardous Materials Regulations (HMR; 49 CFR Parts 171.180). The regulation recognized by the HMR and authorized in § 171.11 as an alternative to compliance with HMR requirements is the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions). In accordance with ICAO Technical Instructions special provision "A45(f)," lithium cells and batteries that were manufactured before January 1, 2003, that have not been tested in accordance with the testing requirements in Chapter 38.3 of the *UN Manual of Tests and Criteria* may be transported until December 31, 2004, if all of the other applicable requirements are met. However, the ICAO Technical Instructions require all lithium cells and batteries manufactured after January 1, 2003, to be tested in accordance with the UN Manual of Tests and Criteria.

For transportation by vessel, special provision "310" of the International Maritime Dangerous Goods (IMDG) Code states that the testing requirements in chapter 38.3 of the UN Manual of Tests and Criteria do not apply to production runs consisting of not more than 100 lithium cells and batteries, or to pre-production prototypes of lithium cells and batteries when these prototypes are transported for testing, if;



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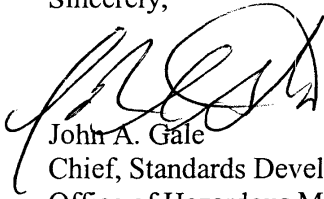
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1. The cells and batteries are transported in an outer packaging that is a metal, plastics or plywood drum or a metal, plastics, or wooden box and that meets the criteria for Packing Group I packagings; and

2. Each cell and battery is individually packed in an inner packaging inside an outer packaging and is surrounded by cushioning material that is non-combustible and non-conductive.

I hope this information is helpful. Please contact us if you require additional assistance

Sincerely,



John A. Gale  
Chief, Standards Development  
Office of Hazardous Materials Standards

**CAP ANALYSIS**

Relferford  
\$173.185  
Lithium Batteries  
04-0154

George A. Kerchner  
Manager  
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June 25, 2004


Via Facsimile

Mr. Edward Mazzullo  
Director of Hazardous Materials Standards  
Research and Special Programs Administration  
U.S. Department of Transportation  
400 7<sup>th</sup> Street, SW  
Washington, DC 20590

Re: Request for Interpretation on UN Testing of Lithium Batteries

Dear Mr. Mazzullo:

I am writing to request confirmation on whether UN testing is required for small lithium and lithium ion batteries under the ICAO Technical Instructions, IATA Dangerous Goods Regulations, and International Maritime Dangerous Goods (IMDG) Code. There appears to be a significant amount of confusion among U.S. battery assemblers with regard to this issue so your immediate response to my question is greatly appreciated.

**Question:** Currently, must all lithium and lithium ion batteries, including those containing not more than 2 grams of lithium metal and not more than 8 grams of equivalent lithium content, be tested pursuant to the *UN Manual of Tests and Criteria, Part III, Sub-section 38.3* if the batteries are shipped internationally pursuant to the ICAO Technical Instructions, IATA Dangerous Goods Regulations, and International Maritime Dangerous Goods (IMDG) Code? 

I am aware of course of the two-year "grandfather clause" in Special Provision A45(f) of the IATA Dangerous Goods Regulations and ICAO Technical Instructions for batteries manufactured prior to January 1, 2003, and that certain "prototype" batteries and batteries of "similar design" may not require testing. However, my question goes more to the general UN testing requirements.

Thank you in advance for your immediate response to this matter.

Sincerely,

  
George A. Kerchner