



-NTSB Forum- Lithium ion Batteries in Transportation

Panel 2 Regulations and Standards

George A. Kerchner
Executive Director
PRBA – The Rechargeable Battery Association
Washington, DC





PRBA – The Rechargeable Battery Association

- Manufacturers of rechargeable and non-rechargeable batteries, notebooks, tablets, cellular phones, power tools, medical devices, automobiles and other battery-powered products
 - Manufacturing facilities in North and South America, Asia, Middle East and Europe
- Members manufacture majority of lithium ion and lithium metal cells on the market
- Members also include retailers, battery test labs and battery recyclers





PRBA – The Rechargeable Battery Association

- Represent industry at international forums on dangerous goods transport regulations
 - UN Sub-Committee of Experts on Transport of Dangerous Goods
 - ICAO Dangerous Goods Panel
 - IMO Sub-Committee on Dangerous Goods, Solid Cargoes and Containers



Lithium ion Cells and Equipment Powered by Lithium ion Cells/Batteries

	2002	2012
Lithium ion <u>cells</u>	800 M	4.40 B
Notebooks	40 M	202 M
Cellular/Smart Phones	420 M	1.70 B
Tablets	0	125 M
Power Tools	0	25 M

U.S. Import Data on Lithium ion Batteries*

	U.S. Imports Trade Values	
	2011	2012
Lithium ion batteries	\$1.04 B	\$1.28 B
Percentage shipped by air	59%	39%

* Does not reflect equipment containing lithium ion batteries (e.g., cellular phones, notebooks, power tools).

Lithium ion Batteries in Surfboards and Backpacks...What Next?





Industry Safety Record

- Excellent safety record since 1991
- Billions of lithium ion cells and batteries, equipment and vehicles with lithium ion batteries safely manufactured and shipped annually



Regulatory Challenges (1)

- Non-compliant shippers
- Lack of enforcement by national authorities
- Counterfeit and “refurbished” lithium ion batteries
- Lack of harmonization in U.S. with international lithium battery dangerous goods transport regulations (*e.g.*, ICAO Technical Instructions)
 - “Dual regulatory system” creates confusion and compliance problems for shippers (especially small businesses), airlines, freight forwarders

Regulatory Challenges (2)

- Reverse logistics of moving larger, consumer-type lithium ion batteries (*e.g.*, E-bike batteries)
- Unrealistic 35 kg mass limitation applicable to lithium ion batteries shipped on cargo aircraft
 - Approvals from each State of origin required for lithium ion batteries over 35 kg
- Slow pace of regulatory process to address new battery technologies

Recent Regulatory Activities

- PRBA/RECHARGE proposal on shipping damaged or defective lithium batteries adopted by UN Sub-Committee in December 2012
- PRBA/RECHARGE proposal on shipping lithium batteries for disposal/recycling adopted by UN Sub-Committee in December 2012
- Immediate action needed by DOT, ICAO and IMO on new UN lithium battery regulations



Outreach and Education on Lithium Battery Transport Regulations

- IATA Lithium battery workshops – China (2011), U.S. (2012), Europe (2013) ...
- ICAO and IATA guidance documents on lithium batteries
- Free industry guidance documents on the web
- PRBA hosted free webinars, developing video on shipping lithium batteries





CONTACT INFORMATION

**George A. Kerchner
Executive Director**

PRBA – The Rechargeable Battery Association

1776 K Street, NW

Washington, DC 20006

Phone: 202.719.4109

Email: gkerchner@wileyrein.com

prbatt@gmail.com

