

## Meeting with OMB on PHMSA Lithium Battery Rulemaking January 15, 2013

- 1. Industry representatives
  - George Kerchner, PRBA-The Rechargeable Battery Association
  - Yvette Rose, Cargo Airline Association
  - Craig Updyke, National Electrical Manufacturers Association
- 2. Status of PHMSA lithium battery rulemaking: How did we get here?
  - January 2010 rulemaking and economic impact on industry
  - Shippers and carriers working together with PHMSA to enhance safety
  - ICAO process and new lithium battery regulations
- 3. Comparison of ICAO v. current US HMR lithium battery regulations
  - Training
  - Hazard communication
  - Safety
- 4. Economic impact of new ICAO regulations
  - E-commerce and treatment of lithium batteries and equipment
  - Ground transport in the U.S.
- 5. Safety and economic implications of not harmonizing with ICAO
- 6. Industry requests for harmonization



# ICAO TI PI 965, Section II Exceptions for Lithium ion Cells/Batteries Effective Jan. 1, 2013

	Lithium ion cells	Lithium ion batteries
	≤20 Wh	≤ 100 Wh
Maximum number per package	8	2
Classification	Excepted	Excepted
Maximum net quantity (mass) per package	No weight limit	No weight limit
Labeling	CALTION:    International Content of the Content of	CALTION  District Language on Exchanging Principles of Manageria  For more industriation, and Access (1984)
Employee training	Adequate instructions	Adequate instructions

**Markings** 

**Training** 

**Shipping papers** 

#### ICAO TI PI 965, Section IB Fully Regulated Lithium ion Cells/Batteries Effective Jan. 1, 2013



Lithium ion cell ≤ 20 Wh Lithium ion battery ≤ 100 Wh  > 2 batteries or > 8 cells per package		
- 2 Datteries	or - o cens per package	
Classification	Fully regulated Class 9 DG	
Package Limits	10 kg gross weight of package (Passenger and cargo aircraft)	
Packaging	Strong outer packaging 1.2 M drop test	
Labels	CAUTION:  Solver Land for Sectored  Boyer Land for Sectored	

UN3480, Lithium ion batteries



#### U.S. Hazardous Materials Regulations **Exceptions** for Lithium ion Cells/Batteries

	Lithium ion cells	Lithium ion batteries
	1.5 g ELC (≤ 20 Wh)	8 g ELC (≤ 100 Wh)
Maximum number per package	N/A	N/A
Classification	Excepted	Excepted
Maximum net quantity (mass) per package	30 kg (66 pounds)	30 kg (66 pounds)
Labeling*	CACTION:  Or similar)  MONOTIFICATION PROSPRING PERSON REPORT OF THE COLUMN  TO STANDARD PROSPRING PERSON RE	CALTRON  ON MALIANTE RESERVANTA BRICKLES BERNELES THE RESERVE OF STATE OF S
Employee training	None	None

<sup>\*</sup> Only required for packages with more than 12 batteries or 24 cells



### ICAO TI PI 965, Section IA Fully Regulated Lithium ion Cells/Batteries Effective Jan. 1, 2013

\* Cargo Aircraft Only label required on outer packaging and over pack (if used) if net weight of lithium ion cells or batteries in outer packaging exceeds 5 kg.

Lithium ion cell > 20 Wh Lithium ion battery > 100 Wh	
Classification	Fully-regulated Class 9 DG
Package Limits	5 kg net weight (Pass.) 35 kg net weight (Cargo)
Packaging	UN performance packaging
Labels*	CEANGO AINCRATI ONLY
Markings	UN3480, Lithium ion batteries
Shipping paper	Shipper's Declaration for DG
Training	DG training



# ICAO TI PI 968, Section II Exceptions for Lithium Metal Cells/Batteries Effective Jan. 1, 2013

	Lithium metal cells	Lithium metal batteries
	≤ 1 g Li metal	≤2 g Li metal
Maximum number per package	8	2
Classification	Excepted	Excepted
Maximum net quantity (mass) per package	No weight limit	No weight limit
Labeling	CACTION:  I WAS AND THE LEASURE ENTERINE FOR AND THE RANGE AND THE PARTY	CACTION  The second of the particular of the second of the
Employee training	Adequate instructions	Adequate instructions

### ICAO TI PI 968, Section IB Fully Regulated Lithium Metal Cells/Batteries Effective Jan. 1, 2013



Lithium metal cell ≤ 1 g Li metal Lithium metal battery ≤ 2 g Li metal		
> 2 batteries or > 8 cells per package		
Classification	Fully regulated Class 9 DG	
Package Limits	2.5 kg gross weight of package (Passenger and cargo aircraft)	
Packaging	Strong outer packaging 1.2 M drop test	
Labels	CACTION  I THE SECOND STATE OF THE SECOND STAT	
Markings	UN3090, Lithium metal batteries	
Shipping papers	Shipper's declaration for DG or alternative document	
Training	Full dangerous goods training	

\* If shipping to, from or within the United States, the Cargo Aircraft Only label must be placed on outer packaging and over pack (if used). See State Variation US 2 in ICAO TI.



#### U.S. Hazardous Materials Regulations **Exceptions** for Lithium Metal Cells/Batteries

	Lithium metal cells	Lithium metal batteries
	≤1 g Li metal	≤2 g Li metal
Maximum number per package	N/A	N/A
Classification	Excepted	Excepted
Maximum net quantity (mass) per package	30 kg (66 pounds)	30 kg (66 pounds)
Labeling*	CATION:  I I I I I I I I I I I I I I I I I I I	CALTHON  CALTHON  (or similar)  PORT CALCADING PER CANADAN  FOr more independent, cell (1.1.15 to 10.5
Employee training	None	None

<sup>\*</sup> Only required for packages with more than 12 batteries or 24 cells



### ICAO TI PI 968, Section IA Fully Regulated Lithium Metal Cells/Batteries Effective Jan. 1, 2013

Lithium metal cell > 1.0 g Li metal Lithium metal battery > 2.0 g Li metal	
Classification	Fully regulated Class 9 DG
Package Limits	2.5 kg net weight (Pass.) 35 kg net weight (Cargo)
Packaging	UN performance packaging
Labels* (** Additional restrictions apply to shipments to, from or within the United States.)	CARGO AURGRAFT ONLY OUT
Markings	UN3090, Lithium metal batteries
Shipping paper	Shipper's Declaration for DG
Training	DG training

\* ICAO TI requires Cargo Aircraft Only label for outer packaging and over pack (if used) if outer packaging contains more than 2.5 kg net weight of lithium metal cells or batteries

\*\* If shipping to, from or within the United States, the Cargo Aircraft Only must be placed on outer packaging and over pack (if used). See State Variation US 2 in ICAO Technical Instructions.