

## **COMMITTEE OF EXPERTS ON THE TRANSPORT OF DANGEROUS GOODS AND ON THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS**

Sub-Committee of Experts on the  
Transport of Dangerous Goods

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### **ELECTRIC STORAGE SYSTEMS**

#### Industry Comments on ST/SG/AC.10/C.3/2009/3

Transmitted by The Portable Rechargeable Battery Association (PRBA), European Rechargeable Battery Association (RECHARGE), Battery Association of Japan (BAJ), European Portable Battery Association (EPBA), Zentralverband Elektrotechnik- und Elektronikindustrie (ZVEI – German Battery Association) and National Electrical Manufacturers Association (NEMA)

1. Recently, the question of how “dry cell” batteries are regulated pursuant to the UN Model Regulations has resulted in a substantial amount of confusion for regulators. This issue has taken on increasing importance due to the large number of batteries being manufactured and collected and shipped for recycling. PRBA, RECHARGE, BAJ, EPBA and ZVEI support proposal ST/SG/AC.10/C.3/2009/3 submitted by the Secretariat to amend Special Provision 304 of the UN Model Regulations because it helps to clarify the requirements applicable to UN3028. However, we believe a new provision in the UN Model Regulations also is needed to clarify how dry cell batteries must be packaged for transport and harmonize with the ICAO Technical Instructions. Therefore, we are proposing a new provision applicable to these batteries for inclusion in Part 1, Chapter 1.1 section 1.1.1.2 of the UN Model Regulations.
2. Dry cell batteries, sometimes referred to as “household batteries,” are hermetically sealed and typically used for portable power applications. Examples of such batteries include alkali-manganese, zinc-carbon, nickel-metal hydride, nickel-cadmium, nickel-zinc and silver-zinc. Nickel-metal hydride batteries also are used in hybrid-electric vehicles. All dry cell batteries are manufactured with a nonflammable, water-based electrolyte and have a low nominal voltage (between 1.2 and 1.5 Volts) compared to lithium ion and most lithium metal batteries (between 1.5 and 3.7 Volts).
3. The ICAO TI and U.S. hazardous materials regulations do not classify dry cell batteries as dangerous goods. However, these regulations contain generally consistent Special Provisions that identify how these batteries (and products powered by them) must be packaged for transportation. For example, Special Provision A123 in the ICAO TI states:

*“This entry applies to Batteries, electric storage, not otherwise listed in Table 3-1. Examples of such batteries are: alkali-manganese, zinc-carbon, nickel-metal hydride and nickel-cadmium batteries. Any electrical battery or battery-powered device, equipment or vehicle having the potential of a dangerous evolution of heat must be prepared for transport so as to prevent:*

- (a) *A short circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals); and*
- (b) *Unintentional activation.*

*The words “not restricted” and the special provision number A123 must be provided on the air waybill when an air waybill is issued.”.*

4. The industry believes it is important to have harmonization among the various modes of transport and therefore proposes to add a new provision in Part 1, Chapter 1.1 of the UN Model regulations to be consistent with the ICAO TI.

### **Proposal**

Add a new paragraph (c) in Part 1, Chapter 1.1, section 1.1.1.2:

“1.1.1.2 These Regulations do not apply to the transport of:

- (a) ...
- (b) ...
- (c) Batteries not otherwise listed in Chapter 3.2 or identified in Special Provision 304 and devices or equipment powered by such batteries provided they are prepared for transport so as to prevent:
  - i) a short circuit that could lead to a dangerous evolution of heat (e.g. in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals); and
  - ii) unintentional activation.”.

5. Examples of such batteries include alkali-manganese, zinc-carbon, nickel-metal hydride, nickel-cadmium, nickel-zinc and silver-zinc.

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