



**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****Thirty-eighth session**

Geneva, 29 November–7 December 2010

Item 5 of the provisional agenda

Electric storage systems**Packagings for large lithium batteries****Transmitted by The Rechargeable Battery Association (PRBA)¹****Introduction**

1. At the thirty-seventh session of the Sub-Committee, PRBA proposed in ST/SG/AC.10/C.3/2010/35 to amend Special Provision 310, which applies to low production and prototype lithium ion and lithium metal cells and batteries. PRBA's proposal provided for the following changes:

- (a) Authorization to offer for transport prototype and low production lithium ion and lithium metal cells and batteries contained in equipment.
- (b) Authorization to offer for transport prototype and low production lithium ion and lithium metal batteries, battery assemblies and equipment containing such batteries or battery assemblies with a mass of 12 kg or greater and having strong, impact resistant outer casings, packed in strong outer packagings or protective enclosures unpackaged or on pallets in lieu of Packing Group I packaging.
- (c) Adding the word “annually” in association with the phrase “*production runs of not more than 100 cells and batteries*” in order to provide for clarification of this provision.

2. Sub-Committee members noted two issues of concern regarding the proposed changes in ST/SG/AC.10/C.3/2010/35. First, it was suggested that large prototype and low

¹ In accordance with the programme of work of the Sub-Committee for 2009-2010 approved by the Committee at its fourth session (refer to ST/SG/AC.10/C.3/68, para. 118 (c) and ST/SG/AC.10/36, para. 14).

production lithium batteries, batteries assemblies and equipment containing such batteries over 12 kg with impact resistant outer casings should not be authorized for transport in “protective enclosures unpackaged or on pallets.” To address this concern, PRBA has amended its proposal to authorize only the use of strong outer packagings for these batteries and equipment.

3. The second issue of concern relates to how “*production runs consisting of not more than 100 lithium cells and batteries*” is being interpreted and whether such production runs should be authorized on an annual basis. PRBA is aware that “production runs” has been interpreted several different ways and can be misinterpreted to mean daily, weekly or monthly runs of a particular battery design. In order to eliminate any confusion over this issue, PRBA is proposing to add the word “annually” to Special Provision 310 in association with term “production run.” We believe this is a reasonable change and will allow battery manufacturers of small production runs to continue to meet customer demands for specialized batteries that often are very expensive to manufacture. This is particular true for batteries designed for military and aerospace applications that often are tested to higher standards than currently required by the UN Manual of Tests and Criteria. It also is worth noting that these batteries currently must be packaged in metal, plastics or plywood drum or a metal, plastics or wooden box that meet the criteria for packing group I packagings.

4. PRBA also is proposing to delete the phrase “when these prototypes are transported for testing” because prototypes often are shipped for reasons other than testing (e.g., failure analysis) and this requirement has caused some confusion for shippers of these batteries. It also would harmonize Special Provision 310 with the Special Provision A88 in the ICAO Technical Instructions.

Proposal

5. Amend Special Provision 310 as shown below:

310 The testing requirements in Chapter 38.3 of the *Manual of Tests and Criteria* do not apply to production runs consisting of not more than 100 lithium ion and lithium metal cells and batteries annually, or to preproduction prototype cells and batteries. The following packaging requirements shall be met for prototype and low production cells and batteries and equipment containing such cells and batteries: ~~when these prototypes are transported for testing, if:~~

(a) Except as provided in paragraph (c), the cells, ~~and~~ batteries and equipment shall ~~are~~ be 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

(b) Except as provided in paragraph (c), each cell and battery ~~is~~ shall be individually packed in an inner packaging inside an outer packaging. Cells, batteries and equipment shall be ~~and is~~ surrounded by cushioning material that is non-combustible, and non-conductive and protected from short circuits.

(c) Cells, batteries and battery assemblies, or equipment containing such cells, batteries or battery assemblies with a mass of 12 kg or greater and having a strong, impact resistant outer casing, may be packed in strong outer packagings. The cells, batteries and battery assemblies or equipment shall be protected against short circuits.