

## 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

27 November 2014

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Item 2 (c) of the provisional agenda

**Recommendations made by the Sub-Committee on its forty-third,  
forty-fourth and forty-fifth sessions and pending issues: electric storage systems**

## **Comments on the documents ST/SG/AC.10/C.3/2014/67, ST/SG/AC.10/C.3/2014/105 and UN/SCETDG/46/INF.36 - Revised proposal**

**Transmitted by the European Association for Advanced Rechargeable  
Batteries (RECHARGE) and by PRBA – The Rechargeable Battery  
Association and the expert from Germany**

### **Introduction**

1. RECHARGE, PRBA and the expert from Germany reviewed the documents on special provision 310 and agreed to propose a revised text. The revised text covers the proposal in document ST/SG/AC.10/C.3/2014/67 on inclusion of information in the transport document and the comments in informal document INF.36. Furthermore, the references to SP 376 and SP 377 have been moved from the proposed packing instruction to the draft text of SP 310. As the SP 377 contains an option for the transport for disposal or recycling, the word “may” is used instead of “shall”.

### **Proposal**

2. Amend special provision SP 310 to read as follows

**“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 cells and batteries, or to pre-production prototypes of cells and batteries when these prototypes are transported for testing when packaged in accordance with Packing Instruction P910

The transport document shall include the following statement: "Transport in accordance with special provision 310.

Damaged or defective cells, batteries, or cells and batteries contained in equipment shall be transported in accordance with special provision 376 and packaged in accordance with P908 of 4.1.4.1 or LP904 of 4.1.4.3, as applicable.

Cells, batteries or cells and batteries contained in equipment shipped for disposal or recycling may be packaged in accordance with special provision 377 and P909 of 4.1.4.1.“

## 3. Insert a new packing instruction in 4.1.4.1 as follows:

P910	PACKING INSTRUCTION	P910
<p>This instruction applies to UN Nos. 3090, 3091, 3480 and 3481 <u>production runs consisting of not more than 100 cells and batteries, or to pre-production prototypes of cells and batteries when these prototypes are transported for testing [in accordance with Special provision 310].</u></p>		
<p>The following packagings are authorized provided that the general provisions of <b>4.1.1</b> and <b>4.1.3</b> are met:</p> <p>(1) For <del>prototype</del> cells and batteries, <u>including when packed with equipment</u>:</p> <p style="padding-left: 40px;">Drums (1A2, 1B2, 1N2, 1H2, 1D, 1G); Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2); Jerricans (3A2, 3B2, 3H2).</p> <p>Packagings shall conform to the packing group II performance level and shall meet the following requirements:</p> <p>(a) Batteries and cells, including equipment, of different sizes, shapes or masses shall be packaged in an outer packaging of a tested design type listed above provided the total gross mass of the package does not exceed the gross mass for which the design type has been tested;</p> <p><del>(b) The cells and batteries shall be protected against short circuit.</del></p> <p><b>(b e)</b> Each cell or battery shall be individually packed in an inner packaging and placed inside an outer packaging;</p> <p><del>(c d)</del> Each inner packaging shall be completely surrounded by sufficient non-combustible and non-conductive thermal insulation material to protect against a dangerous evolution of heat;</p> <p><del>(d e)</del> Appropriate measures shall be taken to minimize the effects of vibration and shocks and prevent movement of the cells or batteries within the package that may lead to damage and a dangerous condition during transport. Cushioning material that is non-combustible and non-conductive may be used to meet this requirement;</p> <p><del>(e f)</del> Non-combustibility shall be assessed according to a standard recognized in the country where the packaging is designed or manufactured;</p> <p><del>(f g)</del> A cell or battery with a net mass of more than 30 kg shall be limited to one cell or battery per outer packaging.</p> <p>(2) For <del>prototype</del> cells and batteries contained in equipment:</p> <p style="padding-left: 40px;">Drums (1A2, 1B2, 1N2, 1H2, 1D, 1G); Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2); Jerricans (3A2, 3B2, 3H2).</p> <p><u>Packagings shall conform to the packing group II performance level and shall meet the following requirements:</u></p> <p>(a) Equipment of different sizes, shapes and masses shall be packaged in an outer packaging of a tested design type listed above provided the total gross mass of the package does not exceed the mass for which the design type has been tested;</p> <p><del>(b) The cells and batteries shall be protected against short circuit;</del></p> <p><b>(b e)</b> The equipment shall be constructed or packaged in such a manner as to prevent accidental operation during transport;</p> <p><del>(c d)</del> Appropriate measures shall be taken to minimize the effects of vibration and shocks and prevent movement of the <u>equipment</u> <del>cells or batteries</del> within the package that may lead to damage and a dangerous condition during transport. When cushioning material is used to meet this requirement it shall be non-combustible and non-conductive; and</p> <p><del>(d e)</del> Non-combustibility shall be assessed according to a standard recognized in the country where the packaging is designed or manufactured.</p> <p>(3) <u>The equipment or the batteries may be transported unpackaged</u> under conditions specified by the competent authority. Additional conditions that may be considered in the approval process include, but are not limited to:</p> <p>(a) The equipment or the battery shall be strong enough to withstand the shocks and loadings normally encountered during transport, including transshipment between cargo transport units and between</p>		

cargo transport units and warehouses as well as any removal from a pallet for subsequent manual or mechanical handling; and

- (b) The equipment or the battery shall be fixed in cradles or crates or other handling devices in such a way that it will not become loose during normal conditions of transport.

Additional requirements

The cells and batteries shall be protected against short circuit;

Protection against short circuits includes, but is not limited to,

-individual protection of the battery terminals,

-inner packaging to prevent contact between cells and batteries,

-batteries with recessed terminals designed to protect against short circuits, or

-the use of a non-conductive and non-combustible cushioning material to fill empty space between the cells or batteries in the packaging.

4. Assign packing instruction P910 to UN Nos. 3090, 3091, 3480 and 3481 in column 8 of the Dangerous Goods List in Chapter 3.2.