



**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****Forty-sixth session**

Geneva, 1 – 9 December 2014

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****Transport of lithium batteries of small productions runs or
prototype lithium batteries in equipment****Transmitted by the expert from the United Kingdom¹****Introduction**

1. At the forty-fifth session of the Sub-Committee, Germany submitted ST/SG/AC.10/C.3/2014/12 which subsequently led to a lunchtime working group and the development of informal documents INF.62 and INF.62/Rev. 1 on the issue of the transport of lithium batteries of small production runs or prototype lithium batteries contained in equipment.

2. The United Kingdom expert indicated that the text adopted for this kind of transport would be more appropriate as a packing instruction rather than included within a special provision. The United Kingdom expert therefore presents an alternative proposal where the text developed in informal document INF.62/Rev.1 is presented in a packing instruction as follows:

Proposal

3. Amend Special Provision 310 in Chapter 3.3 to read as follows:

¹ In accordance with the programme of work of the Sub-Committee for 2013-2014 approved by the Committee at its sixth session (refer to ST/SG/AC.10/C.3/84, para. 86 and ST/SG/AC.10/40, para. 14).

“**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, ~~if:~~”[The rest of the text of SP310 is deleted]

4. Insert a new packing instruction in 4.1.4.1 as follows:

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P910	PACKING INSTRUCTION	P910
This instruction applies to UN Nos. 3090, 3091, 3480 and 3481 prototypes being transported for testing		
The following packagings are authorized provided that the general provisions of 4.1.1 and 4.1.3 are met:		
<p>(1) For prototype cells and batteries including equipment: Drums (1A2, 1B2, 1N2, 1H2, 1D, 1G); Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2); Jerricans (3A2, 3B2, 3H2).</p>		
Packagings shall conform to the packing group II performance level and shall meet the following requirements:		
<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>(b) The cells and batteries shall be protected against short circuit;</p> <p>(c) Each cell or battery shall be individually packed in an inner packaging and placed inside an outer packaging;</p> <p>(d) 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>(e) 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>(f) Non-combustibility shall be assessed according to a standard recognized in the country where the packaging is designed or manufactured;</p> <p>(g) 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 prototype cells and batteries contained in equipment: Drums (1A2, 1B2, 1N2, 1H2, 1D, 1G); Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2); Jerricans (3A2, 3B2, 3H2).</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>(b) The cells and batteries shall be protected against short circuit;</p> <p>(c) The equipment shall be constructed or packaged in such a manner as to prevent accidental operation during transport;</p>		

- (d) 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. When cushioning material is used to meet this requirement it shall be non-combustible and non-conductive; and
- (e) Non-combustibility shall be assessed according to a standard recognized in the country where the packaging is designed or manufactured.
- (3) For unpackaged prototype batteries or equipment:
- The batteries or the equipment may be transported unpackaged under conditions specified by the competent authority. Additional conditions that may be considered in the approval process include, but are not limited to:
- (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 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 requirement

Prototype damaged or defective cells and batteries 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.

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