

**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

26 June 2014

Forty-fifth session

Geneva, 23 June – 2 July 2014

Item 5 (e) of the provisional agenda

Electric storage systems: miscellaneous

**Comments on ST/SG/AC.10/C.3/2014/12**

**Proposal**

2. The proposals are shown in bold and/or in bold italic (red typing) and are below inserted in the text suggested for SP310 by Germany in 2014/12.

Amend special provision 310 as follows:

For UN 3091 and UN 3481. Assign 310 in Column 6 of the Dangerous Goods List.

**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 following conditions are met:

(a) Cells and batteries **including when packed with equipment:**

(i) The cells ~~and~~ **or** batteries are transported in an outer packaging that is a metal (**1A, 1B, 1N**), plastics (**1H**) or plywood (**1D**) drum or a metal (**4A, 4B, 4N**), plastics (**4H**) or wooden (**4C, 4D, 4F**) box **or a metal (50A, 50B, 50N), plastics (50H) or wooden (50C, 50D, 50F) large packaging** and that ~~meets the criteria for packing group II packagings and comply with 4.1.1.3;~~ **conforms with the requirements of 4.1.1.3 at the packing Group II performance level.**

*Batteries and cells of different sizes, shapes or masses may be packaged in an outer packaging of a tested and ~~approved~~ design type listed above provided the total gross mass of the package ~~contents~~ does not exceed the mass for which the design type has been tested.*

(ii) Each cell and battery is individually packed in an inner packaging inside an outer packaging;

(iii) 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;

(iv) Appropriate measures shall be taken to minimize the effects of vibration and shocks, prevent movement of the cells or batteries within the package that may lead to **further** damage and a dangerous condition during transport. Cushioning material that is non-combustible and non-conductive may be used to meet this requirement;

(v) Non-combustibility shall be assessed according to a standard recognized in the country where the packaging is designed or manufactured;

(vi) The cells and batteries are protected against short circuit; and

(vii) A cell or battery with a net mass of more than 30 kg shall be limited to one cell or battery per outer package.

**(b) Cells and batteries contained in equipment:**

(i) *The equipment* contained in equipment *is* transported in an outer packaging that is a metal (1A, 1B, 1N), plastics (1H) or plywood (1D) drum or a metal (4A, 4B, 4N), plastics (4H) or wooden (4C, 4D, 4F) box or a metal (50A, 50B, 50N), plastics (50H) or wooden (50C, 50D, 50F) large packaging and meets the criteria for packing group II packagings ~~and comply with 4.1.1.3;~~ *conforms with the requirements of 4.1.1.3 at the packing Group II performance level.*

*Equipment of different sizes, shapes and masses may be packaged in an outer packaging of a tested and approved design type listed above provided the total gross mass of the package (contents) does not exceed the mass for which the design type has been tested.*

(ii) The equipment is constructed or packaged in such a manner as to prevent accidental operation during transport;

(iii) Appropriate measures shall be taken to minimize the effects of vibration and shocks, prevent movement of the cells or batteries within the package that may lead to further damage and a dangerous condition during transport. *When cushioning material is used to meet this requirement it shall be non-combustible and non-conductive;*

(iv) Non-combustibility shall be assessed according to a standard recognized in the country where the packaging is designed or manufactured; and

(v) The cells and batteries are protected against short circuit.

**(c) The Equipment or the battery of a size that cannot be transported in a large packaging** 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:

- The equipment *or the battery* shall be strong enough to withstand the shocks and loadings normally encountered during transport including trans-shipment 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;

~~All closure and openings shall be sealed so that there can be no loss of contents that might be caused under normal conditions of transport;~~

- The equipment *or batteries* shall be fixed in cradles or crates or other handling devices in such a way that they will not become loose during normal conditions of transport.

(e)(d) Identified 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.