

**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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Item 5 (e) of the provisional agenda

Electric storage systems: miscellaneous

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

**Proposal**

1. For UN 3091 and UN 3481, assign Special Provision 310 in Column 6 of the Dangerous Goods List.
2. Amend Special Provision 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, 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 (3A, 3B, 3N) or plastics (3H) jerrican 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 that meets the requirements of 4.1.1.3. at the packing Group II performance level;  
  
Batteries and cells, including equipment, of different sizes, shapes or masses may be packaged in an outer packaging of a tested ~~and~~ 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;
  - (ii) Each cell ~~and~~ or 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 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;
  - (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 packaging.
- (b) Cells and batteries contained in equipment:
- (i) The equipment is transported in an outer packaging that is a metal (1A, 1B, 1N), plastics (1H) or plywood (1D) drum or a metal (3A, 3B, 3N) or plastics (3H) jerrican 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 that meets 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~~ 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;
  - (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 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;
  - (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 batteries 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:
- (i) 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
  - (ii) The equipment or the battery 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.
- (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.
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