

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

7 December 2012

Forty-second session

Geneva, 3 – 11 December 2012

Item 2 (c) of the provisional agenda

**Recommendations made by the Sub-Committee on its thirty-ninth,
fortieth and forty-first sessions and pending issues: electric storage systems**

Special Provision and Packing Instructions for damaged or defective lithium batteries

**Transmitted by the Rechargeable Battery Association (PRBA) and the
International Association for the Promotion and Management of
Portable Rechargeable Batteries (RECHARGE)**

Proposal (revised)

1. PRBA and RECHARGE invite the Sub-Committee to consider the following revised proposal for a special provision and packing instructions for the transport of damaged and defective Lithium batteries:
2. SP YYY Lithium ion cells or batteries and lithium metal cells or batteries identified as being damaged or defective such that they do not conform to the type tested according to the applicable provisions of the Manual of Tests and Criteria shall comply with the requirements of this Special Provision.
3. For the purposes of this Special Provision, these may include, but are not limited to:
 - Cells or batteries identified as being defective for safety reasons;
 - Cells or batteries that have leaked or vented;
 - Cells or batteries that cannot be diagnosed prior to transport; or
 - Cells or batteries that have sustained physical or mechanical damage.

NOTE: In assessing a battery as damaged or defective, the type of battery and its previous use and misuse shall be taken into account.

3. Cells and batteries shall be transported according to the provisions applicable to UN3090, UN3091, UN3480 and UN3481, except Special Provision 230 and as otherwise stated in this Special Provision.
4. Packages shall be marked “Damaged/Defective Lithium-ion Batteries” or “Damaged/Defective Lithium Metal Batteries”, as applicable.
5. Cells and batteries shall be packed in accordance with Packing Instructions P9XX or LP9XX, as applicable.
6. Cells and batteries liable to rapidly disassemble, dangerously react, produce a flame or a dangerous evolution of heat or a dangerous emission of toxic, corrosive or flammable gases or vapours under normal conditions of transport shall not be transported except under conditions specified by the Competent Authority.

P9XX	PACKING INSTRUCTION	P9XX
	This instruction applies to UN Nos. 3090, 3091, 3480 and 3481	
	<p>The following packagings are authorized for damaged or defective lithium ion cells and batteries and lithium metal cells and batteries including those contained in equipment, provided the general provisions of 4.1.1 and 4.1.3 are met:</p> <p>For cells and batteries and equipment containing cells and batteries:</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.</p> <p>Each cell or battery or equipment containing such cells and batteries:</p> <ol style="list-style-type: none"> 1. Shall be individually packed in inner packaging and placed inside of an outer packaging. The inner packaging or outer packaging shall be leak-proof to prevent the potential release of electrolyte. 2. Each inner packaging shall be surrounded by sufficient non-combustible and non-conductive thermal insulation material to protect against a dangerous evolution of heat. 3. Sealed packagings shall be fitted with a venting device when appropriate. 4. Appropriate measures shall be taken to minimize the effects of vibrations 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 also be used to meet this requirement. 5. Non combustibility shall be assessed according to a standard recognized in the country where the packaging is designed or manufactured. <p>For leaking cells or batteries, sufficient inert absorbent material shall be added to the inner or outer packaging to absorb any release of electrolyte.</p> <p>A cell or battery with a net mass of more than 30 kg shall be limited to one cell or battery per outer package.</p>	
	Additional requirements:	
	Cells or batteries shall be protected against short circuit.	

LP9XX	PACKING INSTRUCTION	LP9XX
This instruction applies to UN Nos. 3090, 3091, 3480 and 3481		
<p>The following large packagings are authorized for a single damaged or defective lithium ion cell and battery and lithium metal cell and battery including those contained in equipment, provided the general provisions of 4.1.1 and 4.1.3 are met</p> <p>For cells and batteries and equipment containing cells and batteries:</p> <ul style="list-style-type: none"> steel (50A) aluminium (50B) metal other than steel or aluminium (50N) rigid plastics (50H) plywood (50D) <p>Packagings shall conform to the packing group II performance level.</p> <ol style="list-style-type: none"> 1. Shall be individually packed in inner packaging and placed inside of an outer packaging. The inner packaging or outer packaging shall be leak-proof to prevent the potential release of electrolyte. 2. Each inner packaging shall be surrounded by sufficient non-combustible and non-conductive thermal insulation material to protect against a dangerous evolution of heat. 3. Sealed packagings shall be fitted with a venting device when appropriate. 4. Appropriate measures shall be taken to minimize the effects of vibrations 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 also be used to meet this requirement. 5. Non combustibility shall be assessed according to a standard recognized in the country where the packaging is designed or manufactured. <p>For leaking cells or batteries, sufficient inert absorbent material shall be added to the inner or outer packaging to absorb any release of electrolyte.</p>		
Additional requirements:		
Cells or batteries shall be protected against short circuit.		