

**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 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 the transport
of waste lithium batteries**

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

Introduction

Proposal

PRBA and RECHARGE invite the Sub-Committee to consider the following revised proposal for a new Special Provision SP XXX and Packing Instructions P903a for waste lithium batteries transported for disposal or recycling.

SP XXX Lithium ion and lithium metal cells and batteries and equipment containing such cells and batteries transported for disposal or recycling, either packed together with or packed without other non-lithium batteries, may be packaged in accordance with the packing instruction P903a. In addition, packages shall be marked “LITHIUM BATTERIES FOR DISPOSAL” or “LITHIUM BATTERIES FOR RECYCLING”.

Identified damaged or defective batteries shall be transported in accordance with SP YYY and packaged in accordance with P9XX or LP9XX, as applicable.

P903a	Packing Instruction	P903a
<p>This packing instruction applies UN Nos. 3090, 3091, 3480 and 3481 transported for disposal or recycling, either packed together with or packed without other non-lithium batteries:</p> <p>(1) Lithium ion cells with a Watt-hour rating of not more than 20 Wh, lithium ion batteries with a Watt-hour rating of not more than 100 Wh, lithium metal cells with a lithium content of not more than 1 g and lithium metal batteries with an aggregate lithium content of not more than 2 g are not subject to other provisions of these Regulations if they are designed or packaged to prevent short circuits and the dangerous evolution of heat and packed in accordance with the following:</p> <p>(a) In strong outer packaging up to 30 kg gross mass meeting the general provisions of 4.1.1, except 4.1.1.3, and 4.1.3.</p> <p>(b) In packaging up to 120 kg gross mass meeting the general provisions of 4.1.1 and 4.1.3. Metal packagings shall be fitted with a non-conductive lining material (<i>e.g.</i>, plastic) of adequate strength for the intended use.</p>		

- (2) Cells and batteries that do not meet the requirements of paragraph (1) shall comply with all provisions of these Regulations, except the requirements of Section 2.9.4. and packed in accordance with the following:
- (a) The following packaging are authorized, provided that the general provisions of **4.1.1** and **4.1.3**, are met:
 - Drums (1A2, 1B2, 1N2, 1H2, 1D, 1G);
 - Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H2); and
 - Jerricans (3A2, 3B2, 3H2).
 - (b) Packagings shall conform to the packing group II performance level.
 - (c) Metal packagings shall be fitted with a non-conductive lining material (*e.g.*, plastic) of adequate strength for the intended use.
- (3) For cells or batteries contained in equipment, strong outer packagings constructed of suitable material, and of adequate strength and design in relation to the packaging capacity and its intended use. Packagings need not meet the requirements of 4.1.1.3. Large equipment can be offered for carriage unpackaged or on pallets when the cells or batteries are afforded equivalent protection by the equipment in which they are contained.
- (4) In addition, for cells or batteries with a gross mass of 12 kg or more employing a strong, impact resistant outer casing, in strong outer packagings constructed of suitable material and of adequate strength and design in relation to the packagings capacity and its intended use. Packagings need not meet the requirements of 4.1.1.3.

Additional requirements:

Cells and batteries shall be designed or packaged to prevent short circuits and ~~the~~ dangerous evolution of heat.

Protection against short circuits and the dangerous evolution of heat includes, but is not limited to,

- individual protection of the battery terminals,
- inner packaging to prevent contact between cells and batteries,
- batteries with terminals or internal device designed to protect against short circuits, or
- the use of cushioning material to fill empty space in the packaging.

The cushioning material may be dispensed with when the cells and batteries are returned in a polyethylene bag that is tightly closed before the outer packaging is closed.