

**Committee of Experts on the Transport of Dangerous Goods
and on the Globally Harmonized System of Classification
and Labelling of Chemicals**

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Sub-Committee of Experts on the Transport of Dangerous Goods

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Item 4 (a) of the provisional agenda

Electric storage systems: testing of lithium batteries

**Complementary proposals for ST/SG/AC.10/C.3/2019/49,
Applicability of packing instruction LP906, and clarification
of packing instruction P911**

Transmitted by the European Association for Advanced Rechargeable Batteries (RECHARGE), International Organisation of Motor Vehicle Manufacturers (OICA), the Rechargeable Battery Association (PRBA), and the Council on Safe Transportation of Hazardous Articles (COSTHA)

Introduction

1. Following the comments received about ST/SG/AC.10/C.3/2019/49 during the preparatory work of this 56th session, the authors would like to propose a supplementary proposal, replacing proposals 1 and 2 of ST/SG/AC.10/C.3/2019/49.
2. The principle of the change proposed in ST/SG/AC.10/C.3/2019/49 is to create additional requirements for the case of usage of LP906 in the transport of multiple batteries or items of equipment containing batteries.
3. Nevertheless, it was identified that the additional text proposed in ST/SG/AC.10/C.3/2019/49 was only describing the application of additional requirements to the case of multiple batteries, but not to the case of multiple items of equipment.
4. In order to clarify that the additive requirements are applicable as well to the batteries as to the items of equipment containing batteries, the proposals 1 and 2 are modified as follows (new text with double underlining):

Proposal 1

5. Modify the third sentence of LP906:
“For ~~a single battery~~ies and items of equipment containing batteries ~~contained in a single item of equipment...~~”

6. Modify the second paragraph of the point 2 of LP906:

“A verification report shall be made available on request. As minimum requirement, the batteries name, the batteries number, the mass, type, energy content, the maximum number of batteries and items of equipment that may be contained inside the packaging, the large packaging identification and the test data according to the verification method as specified by the competent authority shall be listed in the verification report.”
7. Modify the paragraph (d), (e) and (g) of the note ^a by replacing “battery” by “batteries”:

“(d) The test and any supporting calculations shall assess the result of a thermal runaway of the batteries inside the large packaging in the normal conditions of transport;

(e) In case the SOC of the batteries is not known, the assessment used, shall be done with the highest possible SOC corresponding to the batteries use conditions;

(g) The tests or the model calculation shall consider the worst case scenario for the thermal runaway triggering and propagation inside the batteries; this scenario includes the worst possible failure in the normal transport condition, the maximum heat and flame emissions for the possible propagation of the reaction;”
8. Add a paragraph (i) into the note ^a of LP906 as follows:

“^a The following criteria, as relevant, may be considered to assess the performance of the large packaging:

[(a) to (h)]

(i) In the case of multiple batteries and multiple items of equipment containing batteries, additional requirements such as the maximum number of batteries and items of equipment, the total energy content, as well as the separation between the batteries or the equipment, the inner packaging and the configuration inside the package shall be considered.”

Proposal 2

9. Add a paragraph (i) into the note ^a of P911, as follows:

“^a The following criteria, as relevant, may be considered to assess the performance of the large packaging:

[(a) to (h)]

(i) In the case of multiple batteries and multiple items of equipment containing batteries, additional requirements such as the maximum number of batteries and items of equipment, the total energy content, as well as the separation between the batteries or the equipment, the inner packaging and the configuration inside the package shall be considered.”
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