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**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****Fifty-ninth session**

Geneva, 29 November – 8 December 2021

Item 4 (c) of the provisional agenda

**Electric storage systems: transport provisions****Proposed amendments to packing instruction LP903****Transmitted by PRBA – The Rechargeable Battery Association and  
RECHARGE the Advanced Rechargeable & Lithium Batteries  
Association\*****Introduction**

1. During the fifty-eighth session, the Sub-Committee considered amendments to packing instruction LP903 based on document ST/SG/AC.10/C.3/2021/28. Taking account of the comments received from members of the Sub-Committee, PRBA and RECHARGE prepared new proposed amendments to LP903 for the Sub-Committee's consideration.
2. As noted in ST/SG/AC.10/C.3/2021/28, the lithium ion battery industry will see significant growth over the next ten years as new "giga-factories" are constructed in many parts of the world. These factories will each have the capability of producing billions of lithium ion cells annually for portable, industrial, and electric vehicle applications. To accommodate such growth, it is imperative that the limitation to one cell, battery, or item of equipment per large packaging currently included in LP903 be removed.
3. The comments PRBA and RECHARGE received in response to ST/SG/AC.10/C.3/2021/28 focused primarily on the use of inner packaging and the need to limit the large packagings to cell, battery, and equipment designs the packaging was tested to accommodate. PRBA and RECHARGE also have not included any requirements associated with the energy content of cells and batteries based on several requests from members of the Sub-Committee.

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\* A/75/6 (Sect.20), para. 20.51

## Proposal

4. PRBA and RECHARGE therefore propose to amend 4.1.4.3 on packing instruction LP903 as follows (new text is underlined, deleted text is stricken-through):

| LP903                                                                                                                                                                                                                                                                                                                | PACKING INSTRUCTION | LP903 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------|
| This instruction applies to UN Nos. 3090, 3091, 3480 and 3481                                                                                                                                                                                                                                                        |                     |       |
| The following large packagings are authorized for <u>cells</u> , <del>a single</del> <u>batteries</u> and for <del>a single item of</del> equipment containing batteries, provided that the general provisions of <b>4.1.1</b> and <b>4.1.3</b> are met:                                                             |                     |       |
| Rigid large packagings conforming to the packing group II performance level, made of:                                                                                                                                                                                                                                |                     |       |
| <ul style="list-style-type: none"> <li>steel (50A);</li> <li>aluminium (50B);</li> <li>metal other than steel or aluminium (50N);</li> <li>rigid plastics (50H);</li> <li>natural wood (50C);</li> <li>plywood (50D);</li> <li>reconstituted wood (50F);</li> <li>rigid fibreboard (50G).</li> </ul>                 |                     |       |
| <p><del>The Cells, batteries or the</del> equipment shall be <u>placed in inner packaging that completely enclose and separate them to ensure packed so that the battery or the equipment is protected</u> against damage that may be caused by <del>its</del> movement or placement within the large packaging.</p> |                     |       |
| <b>Additional requirements:</b>                                                                                                                                                                                                                                                                                      |                     |       |
| <p><u>Cells and batteries</u> shall be protected against short circuit.</p>                                                                                                                                                                                                                                          |                     |       |
| <p><u>The large packaging shall only be used to transport cell, battery, or equipment designs the packaging was originally designed and tested to accommodate.</u></p>                                                                                                                                               |                     |       |