



**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-fourth session**

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**New proposals for amendments to the Model Regulations
on the Transport of Dangerous Goods****Applicability of packing instruction LP906****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. Packing instructions P911 and LP906 have been developed in order to provide a packaging solution for damaged and defective batteries of UN Nos. 3090, 3091, 3480 and 3481 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.
2. The qualification process of this packaging has to be approved by the competent authority, based on a number of criteria identified in the note “a” to LP906. These criteria are defined in a way to ensure that the qualification process demonstrates the efficiency of the packaging protection in the worst foreseeable case scenario.
3. As a result, the industry is considering robust and quite massive packaging capable of containing the hazards of the large lithium batteries in case of thermal reaction. These packaging may also contain expensive specific devices for extinguishing or controlling the reactions hazards.

* In accordance with the programme of work of the Sub-Committee for 2017–2018 approved by the Committee at its eighth session (see ST/SG/AC.10/C.3/100, paragraph 98 and ST/SG/AC.10/44, paragraph 14).

4. The usage conditions of P911 and LP906 have to be described by the packaging supplier and provided to the packaging user, in order to verify that the packaging is used according to the conditions defined for the qualification process (type of batteries, quantities, configuration, etc...).
5. It is recognized in P911 that the packaging can be used for multiple batteries. For example, if the packaging qualification process is demonstrating that the hazards in case of reaction of several small batteries are not exceeding the hazards produced by the reaction of a larger battery, then these type of products can be transported in the qualified packaging (i.e. transport 2 batteries of 100 kg instead of 1 battery of 200kg).
6. Packing instruction LP906 has been created for the transport of batteries larger than 400 kg. Although the qualification process and the conditions of usage are exactly the same for LP906 than for P911, it is not possible to use the large packing instruction LP906 for more than a single battery, as it is explicitly specified in the text of the packing instruction. For example, a packaging qualified for the transport of a battery of 600 kg cannot be used for two batteries of 300 kg and not even for two batteries of 30 kg. It is recognized that other large packing instructions for lithium batteries are also restricting the usage to a single battery (like LP903 and LP904). Nevertheless, the specific qualification process and the package properties (containing the hazards in the worst case scenario) in the case of LP906 make this restriction superfluous. On the contrary, it may limit the usage of the existing packaging and require unjustified investment in multiple packaging solutions and multiple testing, thus reducing the application of this solution.
7. In order to provide for the needed flexibility in the usage of the LP906 packaging, and without reducing the control of the potential risk of transport of large damaged and defective lithium batteries, we propose to allow for the usage of the LP906 packaging for multiple batteries.

Proposal

8. In LP906, amend as follows the first sentence after the introductory paragraph:
“The following large packagings are authorized, provided that the general provisions 4.1.1 and 4.1.3 are met:
~~For a single battery and batteries contained in a single item of equipment:~~ For batteries and equipment containing batteries”.
