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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Electric storage systems: sodium-ion batteries

Applicability of packing instruction LP906, and clarification of packing instruction P911 (refer to document ST/SG/AC.10/C.3/2020/29)

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

Introduction

1. This document is proposing an answer to the comments made about the proposal ST/SG/AC.10/C.3/2020/29, and a modified proposal taking into account these comments.

2. One of the main concerns identified in the comments (Spain) remains the risk that the LP 906 would be used for transport of a high number of small batteries; additionally, Spain do not see the need to allow transport of several batteries under this LP, as they can be transported under P911. This proposal indeed intents to clarify that this packaging cannot be used for a high number of small batteries, but for several large parts of batteries. It is also the reason why this change is necessary, particularly for parts of large batteries for buses and trucks, that individually exceed 400 kg. We understand that the concern was not cleared by the wording proposed, as it was expressed by Germany and China too, and acknowledge with the Belgium comment for a more explicit wording.

3. A similar concern was raised for the lack of clarity of the wording “maximum number and energy” of the batteries, both for the text describing the verification report, and the text describing the instructions for use. The following changes are proposed to achieve a better description of the requirement:

- for the verification report, the wording “the batteries number, the mass, type, energy content of the batteries” is changed to “the maximum number of batteries, the maximum total mass of batteries, the maximum total energy content of the batteries”;
- for the instructions for use, the wording “their maximum number and energy”, is changed to “the maximum number of batteries contained in the package, and the total energy content of the batteries”. To answer the specific comment of China, the energy indicated here is the battery energy content indicated by the manufacturer, as it is not changed in case the batteries are damaged.

4. The creation of the requirement for the availability of “instructions for use” generates concerns about the description of the responsibilities for their creation, their communication and their usage. Both the paragraphs describing the verification report and the instructions for use are amended. The responsibility to generate a set of instructions for use is associated

with the qualification of the package, then a sentence is added to require the availability of the instructions for use be attached to the verification report. The communication and usage requirement are described in an additive sentence, following a suggestion from Canada." The instructions for the usage conditions of the package shall be made available by the packaging manufacturers and subsequent distributors to the consignor or to the person who prepares the package".

5. Some other comments refer to potential improvements that are not directly related to the change in the applicability of LP906, but more about the existing process of verification. We recognize that a more standardized and simplified method for the verification of the package performance would be useful and hope that such a simplification will be one of the benefits of the new lithium batteries classification based on hazards. Until this time, we only can recommend the usage of the note a) in LP906 and P911. Another comment underlines the potential limitations of the usage of LP906: indeed, the expected benefit of these instructions is to avoid the misuse of the package, with uncontrolled mixes or non-verified changes. Therefore, the usage of this package is not applicable for the collection multiple small or unidentified batteries.

6. Finally, some comments are suggesting the potential benefits of harmonization of the approach, i.e while instructions for use for all packaging with multiple batteries, or using same wording for multiple packaging instructions such as "Cells or batteries shall be packed in packaging so that the cells or batteries are protected against damage that may be caused by the movement or placement of the cells or batteries within the packaging". We recognize the interest of the harmonization approach, particularly for the packaging of non-damaged/defective batteries. Nevertheless, the packaging P911 and LP906 correspond to a specific category of packages, with a unique qualification demonstrating the absence of harmful consequences in the worst case of reaction, for batteries that are already damaged. Therefore, a generic approach may not be applicable in this case.

7. The changes in LP906 are described in proposal 1.

8. As comments were provided underlining the benefits of the added paragraph in the note a for packaging of multiple batteries, as proposed in LP906, but also as already possible in P911. Therefore, it is proposed to also add the same paragraph at the end of the note a of P911.

9. The changes in P911 are described in proposal 2.

Proposal 1

10. Amend the third sentence of LP906 to read:

"For ~~a single~~ batter~~y~~ies and items of equipment containing batteries ~~contained in a single item of equipment~~:"

11. 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 of the batteries,~~ the maximum number of batteries, the total mass of batteries, the total energy content of the batteries, 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. A set of specific instructions describing the way to use the package shall also be part of the verification report."

12. Add a point 4 in LP906

"(4) The specific instructions for use of the package shall be made available by the packaging manufacturers and subsequent distributors to the consignor or to the person who prepares the package. They shall include at least the identification of the batteries and items of equipment that may be contained inside the packaging, the maximum number of batteries contained in the package and the maximum total of the batteries

energy content, as well as the configuration inside the package, including the separations and protections used during the performance verification test.

13. Add a paragraph (i) into the note [a] of LP906 as follows:

"*(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 maximum energy content of the batteries, and the configuration inside the package, including separations and protections of the parts, shall be considered.*"

Proposal 2

14. Add a paragraph (i) into the note [a] of P911, as follows:

"*(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 maximum energy content of the batteries, and the configuration inside the package, including separations and protections of the parts, shall be considered.*"