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Economic Commission for Europe**Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****Working Party on General Safety Provisions****106th session**

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Item 2(a) of the provisional agenda

Regulation No. 107 (M₂ and M₃ vehicles) –**Proposals for further amendments****Proposal for amendments to Regulation No. 107 (M₂ and M₃ vehicles)****Submitted by the expert from Hungary^{*}**

The text reproduced below was prepared by the expert from Hungary to simplify the current provisions of paragraph 7.6.8.2. in Annex 3 of UN Regulation No. 107. It is based on informal document GRSG-105-04-Rev.1 (see report ECE/TRANS/WP.29/GRSG/84, para. 11) and incorporates changes based on discussion at the 105th session of the Working Party on General Safety Provisions (GRSG). The modifications to the current text of UN Regulation No. 107 are marked in bold for new and strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2012–2016 (ECE/TRANS/224, para. 94 and ECE/TRANS/2012/12, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate

I. Proposal

Annex 3, paragraphs 7.6.8.2. to 7.6.8.2.2., amend to read:

"7.6.8.2. Every emergency window shall **either**:

7.6.8.2.1. ~~Either be~~ **Be** capable of being easily and instantaneously operated from inside ~~and from outside~~ the vehicle by means of a device recognised as satisfactory. **This provision includes the possibility of using panes of laminated glass or plastic material, or**

7.6.8.2.2. Be made of readily-breakable safety glass. ~~This latter provision precludes the possibility of using panes of laminated glass or plastic material.~~ A device shall be provided adjacent to each emergency window, readily available to persons inside the vehicle, to ensure that each window can be broken. The device for breaking the glass for the emergency windows at the rear of the vehicle shall be positioned either centrally above or below the emergency window or, alternatively, a device shall be positioned adjacent to each end of the window."

II. Justification

1. The main goal of the proposal is to delete from paragraph 7.6.8.2.2. the sentence: "This latter provisions precludes the possibility of using panes of laminated glass or plastic material", and keeping all the other existing relevant provisions.
2. It is also proposed to delete the provision that the emergency window shall be capable of being operated from outside because it is not realistic provision and it is not used in the practice (this is not the main issue so if it seems to be necessary, it can be kept).
3. The proposed text exactly follows the main goal and tries to keep the original text as much as possible.
4. The deletion of the cited sentence clarifies an everyday misunderstanding, coming from the generalized use of this sentence, namely that the use of laminated glass or plastic pane is forbidden in bus windows.
5. This proposed solution does not require the use of laminated glass or plastic panes and it does not prohibit the use of breakable glass. It provides wider flexibility to the manufacturers and opens the way for future developments to increase safety.
6. At the 103rd session of GRSG, it was shown (see informal document GRSG-103-21) that the protection of the passengers from partial ejection is not solved by safety belts. In the future the use of laminated glass or plastic pane in the side windows could possibly contribute to resolving this problem.
7. It was also demonstrated by accident analysis that if the superstructure is strong, the main injury mechanisms in rollover are partial ejection and also gash and prick, caused by sharp glass pieces which are fragments of broken windows.
8. Nowadays there are more technically correct constructions to install emergency exits — if necessary — on side windows, if they are made from laminated glass or plastic pane. Two solutions are shown below.

Figure 1

Push-out type complete emergency window

(locked from inside)



Figure 2

Sliding type emergency exit as part of the complete window

(the whole window is glued to the window frame, but a part of it is used as a sliding type emergency exit)

