

## **Proposal for amendments to UN Regulation No. 107 (M<sub>2</sub> and M<sub>3</sub> vehicles)**

This proposal is due to the report of GRSG on its 104<sup>th</sup> session, (ECE/TRANS/WP.29/GRSG/83, paragraph 13). After preparing the new version (informal document GRSG-105-04) and presenting it on the GRSG website, some comments and proposals were sent by e-mail, which are considered in this new version.

This document supersedes GRSG-105-04.

### **Proposal**

*In Annex 3, paragraph 7.6.8.2., amend to read*

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

7.6.8.2.1. ~~Either~~ **Be** capable of being easily and instantaneously operated from inside ~~and from outside~~ the vehicle by means of a device recognised as satisfactory, 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, **or**

**7.6.8.2.3. In the case of an emergency window that is attached to the wall of the body by means of adhesive, or that can be locked from the inside, shall be so constructed as to be capable of allowing egress from inside the vehicle at all times."**

The two original subparagraphs: 7.6.8.2.1. – 7.6.8.2.2. as well as paragraph 7.6.8.3. shall be deleted.

The subsequent paragraphs 7.6.8.4. to 7.6.8.6. shall be renumbered as 7.6.8.3. – 7.6.8.5.

### **Justifications**

- 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.
- It is also proposed to delete the provision that emergency window shall be capable of being operated from outside because it is not realistic provision, it is not used in the practice. (But this is not the main issue, if it seems to be necessary, it can be kept).
- The proposed text exactly follows the main goal and tries to keep the original text as much as possible

- The deletion of the cited sentence clears up 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.
- This proposed solution does not require the use of laminated glass or plastic panes, it does not prohibit the use of breakable glass. It provides wider flexibility to the manufacturers and opens the door for future developments to increase the safety.
- On the 103<sup>rd</sup> GRSG session it was shown (see GRSG-103-21) that the protection of the passengers against partial ejection is not solved by safety belt. May be in the future the use of laminated glass or plastic pane in the side windows could contribute to the solution of this problem.
- It was also demonstrated by accident analysis that if the superstructure is strong, the main injury mechanisms in rollover are the partial ejection and also the gash and prick, caused by sharp glass pieces, fragments of broken windows.
- Nowadays there are more, technically correct constructions to install emergency exit – if necessary – on side windows, if they are made from laminated glass, or plastic pane. Two solutions are shown below.



Push out type emergency window  
(It is locked from inside)



Sliding type emergency window

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