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Item 14.2.2 of the provisional agenda

**Consideration and vote by AC.3 of draft UN GTRs
and/or draft amendments to established UN GTRs**

Proposal for Amendment 2 to

UN Global Technical Regulation No. 6 (Safety glazing))

**Technical Report on the development of Amendment 2 to
UN Global Technical Regulation (UN GTR) No. 6
(Safety glazing))**

Submitted by the Representative of India*

The text reproduced below was submitted by the expert from India and complementing the proposal for Amendment 2 to the Global Technical Regulation No. 6 (ECE/TRANS/WP.29/GRSG/2019/35). It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Executive Committee (AC.3) of the 1998 Agreement for consideration at their March 2020 sessions.

* In accordance with the programme of work of the Inland Transport Committee for 2020 as outlined in proposed programme budget for 2020 (A/74/6 (part V sect. 20) para 20.37), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.



Technical Report on the development of Amendment 2 to UN Global Technical Regulation (UN GTR) No. 6 (Safety glazing)

A. Background

1. The objective of this proposal is to amend global technical regulation (GTR) No. 6 regarding safety glazing materials for motor vehicles and motor vehicle equipment (hereafter, safety glazing materials).
2. The technical provisions of UN GTR No. 6 are intended to ensure a good view of the road to the driver of a vehicle without causing distortion of his vision. It also ensures that objects or stones thrown against the glazing do not penetrate with a high speed into the occupant compartment and that the occupants are not ejected through the windscreen in the event of a crash.
3. Global Technical Regulation (GTR) No. 6 on Safety Glazing was established in the Global Registry on 12 March 2008 by consensus of the Contracting Parties and published under the reference ECE/TRANS/180/Add.6 and its Appendix 1. For the development of UN GTR No. 6, relative stringency of three safety glazing regulations in which UN Regulation No. 43, the Federal Motor Vehicle Safety Standard (FMVSS) No. 205 and the JAPAN, Safety Regulations for Road Vehicles, Article 29 were compared.
4. The first and latest amendment to UN GTR No. 6 on safety glazing was established in the Global Registry on 9 March 2011 with the aim to have uniform product identification marking in UN GTR 6 with those of UN Regulation No. 43.
5. At the fifty-third session of the Executive Committee of the 1998 Agreement (AC.3), the representative of India presented the informal document WP.29-175-30, requesting AC.3 authorization for the development of an amendment to GTR No. 6 under the sponsorship of his country. AC.3 agreed with the proposal, invited GRSG to start working on these issues and requested the secretariat to distribute WP.29-175-30 with an official symbol.
6. AC.3 at its fifty-fourth session adopted ECE/TRANS/WP.29/2018/167 tabled by India to officially request the authorization to start work on developing the Amendment 2 to UN GTR No. 6.
7. ECE/TRANS/WP.29/AC.3/52 (Action plan was approved in 55th session of AC.3 (13–14 March 2019)).

B. Process organization

8. In 114th Session of GRSG, India had suggested to enable approval of mechanically improved “Laminated Glass Panes” in UN GTR 6 in line with UN R 43. Informal document GRSG-114-20 (Initial suggestion was principally approved in 114th GRSG (9–13 April 2018)).
9. In 115th session (9–12 October 2018) of GRSG actual text of amendment prepared by India as Informal document GRSG-115-38, was approved for conversion into working document.
10. ECE/TRANS/WP.29/GRSG/2019/4 (Expert from Germany commented on justification and placement of clauses in 116th session Geneva, 1–5 April 2019). Document incorporating comments from the German expert was shared with them for their review).

11. The expert from India presented ECE/TRANS/WP.29/GRSG/2019/35 (Document incorporating comments from German expert) was discussed in 117th Session of GRSG (8–11 Oct 2019). The document proposed by India is approved by GRSG subject to consideration by WP.29 and AC.3 at their sessions on March 2020.

C. Development of the UN GTR

12. The objective of the proposal is to develop, in the framework of the 1998 Agreement, an amendment to UN GTR No. 6 on Safety Glazing to adapt the provisions to technical progress to enable the approval of the laminated-glass panes with improved mechanical properties.

13. Addition of headform test and 2260 g ball tests will improve safety. Panes have lesser light transmission requirement compared to windscreen, hence it will improve cost effectiveness as the heat transferred will be less and can retain the temperature inside for the longer time.

14. The development of the draft language for updating the GTR involved consideration of the differences between the respective 1998 Agreement and 1958 Agreement. Specific solutions for the different technical items were developed whereby GRSG experts were requested to support and contribute in the process.

15. The Amendment 2 to UN GTR No. 6 incorporates:

(a) Addition of identification mark of "/D" in paragraph 4.1.2.2.2. to indicate it is mechanically enhanced laminated glass panes meeting 2260 g ball test and the headform test;

(b) Corrections in identification marking in Paragraph 5, Table 1 in line with amendment 1 to UN GTR 6;

(c) Amendment in the table 1 of paragraph 5. containing list of tests for addition of above tests for laminated glass panes and footnote thereof for clarity on applicable tests;

(d) Addition of new paragraphs 5.5.2.2 on the head-form test and paragraph 5.5.2.3 for 2260 g ball test.

D. Conclusion

16. Following the adoption of the draft Amendment 2 to UN GTR No. 6 at its 117th session, GRSG requests AC.3 voting for establishing this Amendment 2 (as proposed in ECE/TRANS/GRSG/2019/35) in the Global Registry.
