

25 July 2024

Global Registry

Created on 18 November 2004, pursuant to Article 6 of the Agreement concerning the establishing of global technical regulations for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles (ECE/TRANS/132 and Corr.1) done at Geneva on 25 June 1998

Addendum 9: United Nations Global Technical Regulation No. 9

United Nations Global Technical Regulation on Pedestrian Safety

Established in the Global Registry on 26 June 2024

Amendment 3 – Appendix 1

Proposal and report pursuant to Article 6, paragraph 6.2.7. of the Agreement

- Authorization for the development of amendments to UN GTR No. 9 (Pedestrian safety) (ECE/TRANS/WP.29/AC.3/45/Rev.1)
- Final progress report on the development of Amendment 3 to UN GTR No. 9 (Pedestrian safety) (ECE/TRANS/WP.29/2024/78, adopted by AC.3 at its seventieth session (ECE/TRANS/WP.29/1179, para. 168).



UNITED NATIONS

Request for authorization to develop an amendment to UN GTR No. 9 (Pedestrian safety)

A. Objective

1. The objective of this proposal is to develop, in the framework of the 1998 Agreement, an amendment to UN GTR No. 9 on pedestrian safety to adapt the Regulation to technical progress by providing a test procedure for deployable systems of the outer surface to ensure an adequate protection of pedestrians or other vulnerable road users during the accident.

B. Background

2. UN GTR No. 9 on Pedestrian safety was established in the Global Registry on 12 November 2008.

3. Amendment 1 to UN GTR No. 9, power driven vehicles of category 1-2 and category 2, where the distance between the transverse centre line of the front axle and the R-point of the driver's seat is less than 1,100 mm, are exempt from the requirements of this regulation, was established in the Global Registry on 10 November 2010.

4. Amendment [2] of phase 2 of the UN GTR No. 9, incorporating the application of the flexible pedestrian legform impactor (FlexPLI) and new bumper test area into, is ongoing since December 2011.

5. Amendment [3] of the UN GTR No. 9, including a proposal concerning points of contact of headform impactors, is ongoing since May 2012.

6. At the fifty-sixth session of the Working Party on Passive Safety (GRSP), the expert from Republic of Korea introduced GRSP-56-21 for information only, suggesting the clarification of the test procedure of deployable devices for pedestrian protection and explaining that there are about 2,000 pedestrian fatalities each year in Korea.

7. At the fifty-seventh session of GRSP, the expert from the Republic of Korea reiterated the issue of the lack of provisions concerning the test procedure of deployable devices to improve the pedestrian protection performance of vehicles. The expert from the International Organization of Motor Vehicle Manufacturers (OICA) informed GRSP that the technical service recommendation and guideline for testing active safety bonnets was provided by a paper (INF GR/PS/141 Rev.1) of the former IWG available at: www.unece.org/trans/main/wp29/wp29wgs/wp29grsp/pedestrian_8.html

8. At the fifty-eighth session of GRSP, the experts from the Republic of Korea and OICA introduced a proposal of amendments to UN GTR (GRSP-58-31), including provisions for deployable systems for pedestrian protection in the bonnet area. The expert from OICA clarified that the proposal aimed to use a well-established procedure that had been presented several years ago and that had been recommended to Contracting Parties (CPs) for consideration.

9. At the 168th session of WP.29, the representative of OICA informed AC.3 that the experts from the Republic of Korea and OICA introduced a proposal of amendments to UN GTR No. 9 to incorporate provisions for deployable systems for pedestrian protection in the bonnet area at the December 2015 session of GRSP. AC.3 noted that a proposal of authorization to develop the amendment should be officially submitted by a sponsor country (Republic of Korea) at its June 2016 session in order to allow GRSP to develop the further amendment.

10. At the fifty-ninth session of GRSP, the experts from the Republic of Korea proposed submitting a request for authorization to develop an amendment to UN GTR No. 9 on test procedure of deployable systems for pedestrian protection of the outer surface at the 169th session of WP.29 and developing a corresponding amendment for Regulation 127 (Pedestrian safety) in parallel.

11. At the sixty-second session of GRSP, the group agreed to transform the Task Force established to develop the amendments in an informal working group (IWG) to encourage the participation of experts from Contracting Parties to the 1998 Agreement and make further progress.

C. Subject of amendment

12. The amendment to UN GTR No. 9 shall include:

- (a) Amendment of Part A - Statement of technical rationale and justification;
- (b) Amendment of Part B - Text of the global technical regulation, in particular:
 - (i) Amendment of paragraph 3.1., 3.11. and 6.2.2.;
 - (ii) Addition of more paragraphs;
 - (iii) Addition of new Annex 1 - Test procedure for deployable systems of the outer surface;
- (c) Any further refinements or corrections as deemed appropriate.

13. The corresponding proposal of amendment to Regulation 127 (Pedestrian safety) shall include a matching test procedure for deployable systems of the outer surface.

D. Organization of process and timeline

14. The proposal will be drafted by the experts of Republic of Korea and the experts of from the International Organization of Motor Vehicle Manufacturers. The amendments to the proposal will be developed in cooperation with all interested GRSP experts. The meetings of interested experts will be organized in an IWG instead of a task force.

15. The proposed action plan:

- (a) June 2016: Submission of the request for authorization to develop an amendment to UN GTR No. 9 (Pedestrian safety) to WP.29/AC.3;
- (b) November 2016: Approval by WP.29/AC.3;
- (c) May 2017: Introduction and consideration of the proposal (informal document) at the sixty-first GRSP session;
- (d) March 2018: Submission of a revision of the request for authorization (ECE/TRANS/WP.29/AC.3/45) to develop an amendment to UN GTR No. 9 (Pedestrian safety) within an IWG to WP.29/AC.3,
- (e) May 2018: Consideration of a draft proposal and its possible adoption at the sixty-third GRSP session;
- (f) November 2018: Adoption of the proposal by WP.29/AC.3.

16. The progress of works will be reported to WP.29/AC.3 at June 2017 and June 2018 sessions.

Final progress report on the development of Amendment 2 to UN GTR No. 9 (Pedestrian Safety) Final Status Report on the Development of Amendment 3 to UN Global Technical Regulation No. 9 (Pedestrian safety) on Deployable Pedestrian Protection Systems

I. Introduction

1. The Republic of Korea requested GRSP, as well as WP.29 and AC.3, to transform TF-DPPS into an Informal Working Group on Deployable Pedestrian Protection Systems (IWG-DPPS). WP.29 and AC.3 approved this request at their 174th and fifty-second sessions in March 2018.

2. At the 184th, 187th and 190th sessions of WP.29, WP.29 and AC.3 endorsed the extension of the mandate until November 2022, then November 2023 and recently until May 2024.

II. Objectives of the Informal Working Group

3. The objective of IWG-DPPS was to develop proposals for test procedures for DPPS. However, IWG also agreed to develop new and more detailed requirements, where needed, so that the new procedure guarantees that deployable systems are correctly activated as designed to protect pedestrians and other vulnerable road users, and to provide at minimum the same level of protection to pedestrians and other vulnerable road users as non-deployable systems. Consequently, a proposal for the amendment to the relevant sections of UN GTR No. 9 was proposed.

III. Summary of the Informal Working Group Activities

4. The organization of IWG was confirmed as:
Chair: Jinseop PARK (Republic of Korea/ Korea Testing and Research Institute (KATRI))
Secretary:
- 1st IWG meeting and 2nd IWG meeting: Thomas Kinsky (Opel/ International Organization of Motor Vehicle Manufacturers (OICA))
- 3rd IWG meeting to 26th IWG meeting: Irina Dausse (Renault / International Organization of Motor Vehicle Manufacturers (OICA))

Several subgroups formed to facilitate the in-depth technical discussions on verification impactor, specific headform testing, detection test area, HBM qualification and simulation procedure, etc.

5. Current Generic Vehicle (GV) Models and new Human Body Models (HBM) qualification procedure are available in M.R.1., Addendum 5, and are subject to updates, pending on software versions and agreement from GRSP.

6. A future phase of DPPS might consider the following activities:

- HIT determination through a generic approach and/or through physical pedestrian dummies testing;
- other explorations (e.g. non-contact sensors, pedestrian body loading, protection at higher vehicle speeds).

7. Twenty-six meetings were held in Europe (Brussels, Frankfurt, Geneva, London, Paris, as well as a majority of virtual web-meetings).

8. The meetings were attended by representatives of Austria, European Commission, France, Germany, Italy, Japan, Republic of Korea, Netherlands, Spain, United Kingdom, United States of America, European Association of Automotive Suppliers (CLEPA), International Organization of Motor Vehicle Manufacturers (OICA) and independent experts.

9. IWG submitted the following reports or proposals to GRSP:

<i>Reference</i>	<i>Title</i>
IWG-DPPS-1-03	Terms of Reference for the informal working group of DPPS of GTR No.9, Pedestrian Protection
GRSP-71-26	Intermediate Status report
GRSP-72-11	2nd status report
ECE/TRANS/WP.29/GRSP/2023/31	Proposal for Amendment 3 to Global Technical Regulation No. 9 (Pedestrian Safety)
ECE/TRANS/WP.29/GRSP/2023/33	Proposal for Amendment 4 of the Mutual Resolution No. 1 (M.R.1) of the 1958 and the 1998 Agreements
GRSP-74-22	GTR9-03 informal document complement
GRSP-74-23	MR1 informal document complement
GRSP-74-11	IWG-DPPS final status report on the development of Amendment 3 to UN Global Technical Regulation No. 9 (Pedestrian Safety)