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World Forum for Harmonization of Vehicle Regulations

Working Party on Noise and Tyres

Eighty-second session Geneva, 3–5 September 2025 Item 6 of the provisional agenda **Regulatory Fitness for Automated Driving Systems**

Proposal for Supplement 1 to the 00 series of amendments to UN Regulation No. 165

Submitted by the experts from the Task Force on Automated Vehicles Regulation Screening*

The text reproduced below was prepared by the experts from the Task Force on Automated Vehicles Regulation Screening (TF AVRS). The modifications are marked in bold for new or strikethrough for deleted characters.

^{*} In accordance with the programme of work of the Inland Transport Committee for 2025 as outlined in proposed programme budget for 2025 (A/79/6 (Sect. 20), table 20.6), 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.



I. Proposal

Table of content, amend to read:

"7 Special provisions for the testing of vehicles equipped with an ADS....."

Paragraph 1.1., footnote 1, amend to read:

"¹ As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.) (ECE/TRANS/WP.29/78/Rev.8)"

Paragraph 2.2. footnote 2, amend to read:

"² The "Low level" mode would provide the driver the tool to avoid complaints in quiet situations that otherwise could result from the "Normal level" mode."

Paragraph 6.1.3., amend to read:

"6.1.3. **Available** Alternative sounds

The manufacturer may define alternative **different available** sounds, which can be selected by the driver; each of these sounds shall be in compliance and approved with the provisions in either paragraph 6.3. or 6.4. as well as paragraphs 6.5. and 6.6."

Insert new paragraphs 11.4. to 11.5., to read:

- **"11.4.** "Automated Driving System (ADS)" means the vehicle hardware and software that are collectively capable of performing the entire Dynamic Driving Task (DDT) on a sustained basis.¹
- 11.5. "Dynamic Driving Task (DDT)" means the real-time operational and tactical functions required to operate the vehicle.¹"

Insert new paragraphs 11.6. to 11.8., to read:

- "11.6. "*Category X vehicles*" are vehicles of categories M, N, L and T meeting all of the following conditions¹:
 - (a) They are equipped with an ADS;
 - (b) They are not capable of being driven manually at speeds exceeding 6 km/h;
 - (c) They are designed to carry occupants.
- 11.7. *"Category Y vehicles"* are vehicles of categories M, N, L and T meeting all of the following conditions¹:
 - (a) They are equipped with an ADS;
 - (b) They are not capable of being driven manually at speeds exceeding 6 km/h;
 - (c) They are not designed to carry occupants at any time.
- 11.8. *"Dual Control Vehicles"* are vehicles equipped with an ADS where the DDT can be performed by either the ADS or a driver, including at speeds exceeding 6 km/h."

Paragraph 14.1.5., amend to read:

"14.1.5. The manufacturer may define alternative **different available** sounds which can be selected by the driver; each of these sounds shall be "Tonal sound" (paragraph 2.7.1.) or "Broadband sound" (paragraph 2.7.2.) or "One-third octave band sound" (paragraph 2.7.3.) and in compliance with the provisions in paragraphs 14.2.2.1., 14.2.2.2. or 14.2.2.3."

Paragraph 14.3., amend to read:

"14.3. Pause function

When the DDT is performed by the driver: The manufacturer may install a pause function to disable temporarily the audible reverse warning device when a vehicle of category M2 (M>3500 kg), N2, M3 or N3 is equipped with a non-audible safety system, device(s) for means of rear visibility or detection as described in UN Regulation No. 158, paragraph 1.3, allowing the driver to check the hazard area behind the vehicle, including when towing vehicle(s) of category O, and it is ensured that such safety system(s) functions while reversing. Any other disabling function which does not satisfy the specifications below is prohibited.

When the DDT is performed by the ADS: The manufacturer may design the ADS with a pause function to disable temporarily the audible reverse warning device when a vehicle of category M2 (M>3500 kg), N2, M3 or N3 is equipped with a non-audible safety system, device(s) for means of rear visibility or detection with performances at least equivalent to those described in UN Regulation No. 158, paragraph 1.3., allowing the ADS to check the hazard area behind the vehicle, including when towing vehicle(s) of category O, and it is ensured that such safety system(s) functions while reversing. Any other disabling function which does not satisfy the specifications below is prohibited, with the exception of the specifications of paragraphs 14.3.2. and 14.3.3. "

Annex 1B, Appendix 1, insert a new item 0.13. to read:

"0.13. Vehicle equipped with ADS: (Yes/No)"

Insert a new Annex 7 to read:

"Annex 7

Special provisions for the testing of vehicles equipped with an ADS

1. General

This Annex adapts Part II of this Regulation to vehicles equipped with an ADS. It does not add nor remove any requirement.

- 2. Specifications
- 2.1. Preparation

When performing the tests of this Regulation, the conditions prescribed in chapter 14 shall be fulfilled. Additional preparation of the test track, the vehicle or other equipment may be needed for testing vehicles equipped with an ADS. This additional preparation shall be approved by the Type Approval Authority and its designated Technical Service and described in the test report.

- 2.2. For *Dual Control Vehicles*, it is sufficient to test either in the manual operation or in ADS operation when the two following conditions are fulfilled:
 - the manufacturer declares that the vehicle is designed in such a way that there should be no difference in performance regardless of manual operation or ADS operation of the vehicle with regard to this Regulation;
 - the Type Approval Authority and its designated Technical Service agree to this single mode testing.
- 2.2.1. If tested in the manual operation, the sound shall be measured according to Part II.

2.2.2. If tested in the ADS operation, the sound shall be measured according to Part II, as far as applicable, and Annex 7."

II. Justification

Table of content

1. A new annex has been added to the table of content.

Paragraph 1.1., footnote 1

2. The reference has been updated to the latest revision of R.E.3.

Paragraph 2.2., footnote 2

3. The reference to a driver has been removed, transforming the sentence to passive form and thus makes the provisions valid also for ADS controlled vehicles.

Paragraphs 6.1.3., 14.1.5. and 14.3.

4. The text has been revised to better reflect the functionality of vehicles controlled by a driver as well as an ADS.

New paragraphs 11.4. to 11.5.

5. The new definitions necessary for identifying a vehicle of categories N and M capable of autonomously moving and navigating in traffic have been introduced. They are aligned with latest proposed R.E.3.

New paragraphs 11.6. to 11.8.

6. The new definitions necessary for embracing the sub-categories of vehicles equipped with ADS have been introduced. They are aligned with latest proposed R.E.3.

Annex 1B, Appendix 1, paragraph 0.13.

In case of a vehicle equipped with ADS, this shall be reported in accordance to Annex 1B.

Annex 7

8. A new annex provides the provisions for additional preparation to facilitate testing vehicles equipped with ADS for the purpose of type approval. Annex 7 opens for necessary, but minimal, adaptations that makes it possible to fulfil the requirement of paragraph 14 - e.g. to force the vehicle to stand still during the test – in agreement between manufacturer and Type Approval Authority and its designated Technical Service.