

**Economic and Social Council**Distr.: General
31 October 2023

Original: English

Economic Commission for Europe**Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****Working Party on Pollution and Energy****Ninetieth session**

Geneva, 9–12 January 2024

Item 3 (a) of the provisional agenda

Light vehicles:

UN Regulations Nos. 68 (Measurement of the maximum speed, including electric vehicles), 83 (Emissions of M₁ and N₁ vehicles), 101 (CO₂ emissions/fuel consumption), 103 (Replacement pollution control devices) and 154 (Worldwide harmonized Light vehicles Test Procedures (WLTP))

Proposal for a new Supplement to the 08 series of amendments to UN Regulation No. 83 (Emissions of M₁, M₂, N₁ and N₂ vehicles)**Submitted by the experts from the International Organization of Motor Vehicle Manufacturers ***

The text reproduced below was prepared by the experts from the International Organization of Motor Vehicle Manufacturers (OICA). This document aims to introduce corrections and clarifications for the 08 series of amendments to UN Regulation No. 83. The contents of this document are based on the informal document GRPE-89-15 presented in the 89th session of GRPE. The modifications to the current text of the Regulation are marked in bold for new or strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2023 as outlined in proposed programme budget for 2024 (A/78/6 (Sect. 20), table 20.5), 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

Paragraph 2.1., amend to read:

"2.1. "Vehicle type" means a group of vehicles that ~~do not differ in the following respects:~~
fulfil the requirements for a vehicle type with regard to emissions in accordance with paragraph 3.0.1. of UN Regulation No. 154.

2.1.1. ~~The equivalent inertia determined in relation to the reference mass as prescribed in Table A4a/3 of Annex 4a of the 07 series of amendments to this Regulation;~~
and

2.1.2. ~~The engine and vehicle characteristics as defined in Annex 1 to this Regulation."~~

paragraph 2.37., amend to read:

"2.37. "Portable emissions measurement system" (PEMS) means a portable emissions measurement system meeting the requirements specified in ~~Appendix 1 to Annex IIIA~~ **Annex 4 of UN Regulation No. [168]."**

Paragraph 3.4.10., amend to read:

"3.4.10. Vehicles of category M1 or N1 shall be approved with emission characters EA, EB or EC as specified in Table A3/1, Annex 3, taking into account the utility factors determined in accordance with the values specified in Table A8.App5/1 ~~of paragraph 3.2. of~~ **Appendix 5 to Annex B8 to UN Regulation No. 154.**

Paragraph 7.1., amend to read:

"7.1. Extensions for ~~tailpipe~~ **idling** emissions (Type 2 test)"

Paragraph 7.2.2.2., amend to read:

"7.2.2.2. To determine whether type approval can be extended, for each of the transmission ratios used in the Type 6 test, the proportion,

$$(E) = \frac{(V_2 - V_1)(V_2 - V_1)}{V_1}$$

shall be determined where, at an engine speed of 1,000 min⁻¹, V₁ is the speed of the vehicle-type approved and V₂ is the speed of the vehicle type for which extension of the approval is requested."

Paragraph (a) to Appendix 3a of Annex 1, amend to read:

"(a) a declaration of the manufacturer that the vehicle does not contain any defeat device not covered by one of the exceptions in paragraph ~~5.1.3.~~ **5.1.7.** of this Regulation;"

Item (i) to paragraph (d) to Appendix 3a of Annex 1, amend to read:

"(i) why any of the exception clauses from the defeat device prohibition in paragraph ~~5.1.3.~~ **5.1.7.** of this Regulation apply;"

Paragraph (f) to Appendix 3a of Annex 1, amend to read:

"(f) a description of the hierarchical relations among the AES (i.e., when more than one AES can be active concurrently, an indication of which AES is primary in responding, the method by which strategies interact, including data flow diagrams and decision logic and how does the hierarchy assure emissions from all AES are controlled to the lowest practical level);"

Item "Versioning table" of Table A1/1 to Appendix 3a of Annex 1, amend to read:

"...

| | |
|------------------|--|
| Versioning table | Content of each version modifications: and with and which part is modified |
|------------------|--|

..."

II. Justification

1. The proposed definition of a vehicle type for the 08 series of amendments to UN Regulation No. 83 could lead to the case that vehicles which fall within a single “*Vehicle type with regard to emissions*” in accordance with UN Regulation No. 154 would not fulfil the requirements to be covered by a single type-approval according to the 08 series of amendments to UN Regulation No. 83. Therefore it is proposed to align the vehicle type definition of the 08 series of amendments to UN Regulation No. 83 to the type definition of UN Regulation No. 154.
 2. The definition for “Portable emissions measurement system (PEMS)” refers to requirements specified in Appendix 1 to Annex IIIA. However, UN Regulation No. 83 in its 08 series of amendments does not contain an Annex IIIA. The definition got carried over unchanged from COMMISSION REGULATION (EU) 2017/1151 as amended by 2018/1832, where Appendix 1 to Annex IIIA refers to “Test procedure for vehicle emissions testing with a Portable Emissions Measurement System (PEMS)”. The chapter with the same headline is included within Annex 4 to the new UN Regulation No. 168 on RDE.
 3. Correction of a wrong reference to paragraph 3.2. of Annex B8 to UN Regulation No. 154. The values used for the utility factor calculation are included in Table A8.App5/1 of paragraph 3. of Appendix 5 to Annex B8 to UN Regulation No. 154 in its original version of the 02 and 03 series of amendments and will be included in paragraph 2. of Appendix 5 to Annex B8 to UN Regulation No. 154 of the 02 and 03 series of amendments after the introduction of supplement 01 for the two series of amendments.
 4. The description of paragraph 7.1. is referring to “tailpipe emissions” and more precisely in detail to the Type 2 test. The Type 2 test however provides the procedure to determine idling emissions as it is also described within paragraph 1. of the regulation.
 5. The formula specified in paragraph 7.2.2.2. of the 08 series of amendments to UN Regulation No. 83 got carried over from the 07 series of amendments to UN Regulation No. 83, however within the 07 series of amendments the absolute value of $(V_2 - V_1)$ is used as the numerator which fits better to the prescribed tolerances of (E).
 6. Paragraph (a) and item (i) of paragraph (d) to Appendix 3a of Annex 1 refer to paragraph 5.1.3. of the 08 series of amendments to UN Regulation No. 83. However, the content of paragraph 5.1.3. is “Reserved”. The description of the “Extended Documentation Package” got carried over from COMMISSION REGULATION (EU) 2017/1151 as amended by 2023/443, where the corresponding paragraphs refer to Article 5(2) of Regulation (EC) No 715/2007. The same content and requirements of Article 5(2) of Regulation (EC) No 715/2007 are contained within 5.1.7. of the 08 series of amendments to UN Regulation No. 83.
 7. Addition of a closing bracket.
 8. Correction of misspelling.
-