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Economic Commission for Europe

Inland Transport Committee

World Forum for Harmonization of Vehicle Regulations

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Item 4.7.4 of the provisional agenda

1958 Agreement:

Consideration of draft amendments

to existing UN Regulations submitted by GRPE

Proposal for Supplement 7 to the 07 series of amendments to UN Regulation No. 83 (Emissions of M₁ and N₁ vehicles)

Submitted by the Working Party on Pollution and Energy*

Addendum

* In accordance with the programme of work of the Inland Transport Committee for 2018–2019 (ECE/TRANS/274, para. 123 and ECE/TRANS/2018/21, Cluster 3), 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.

Appendix 6,

Insert new paragraphs 1.1. and 1.2., to read:

- "1.1. The capacity of the reagent tank shall be such that a full reagent tank does not need to be replenished over an average driving range of 5 full fuel tanks providing the reagent tank can be easily replenished (e.g. without the use of tools and without removing vehicle interior trim. The opening of an interior flap, in order to gain access for the purpose of reagent replenishment, shall not be understood as the removal of interior trim). If the reagent tank is not considered to be easy to replenish as described above, the minimum reagent tank capacity shall be at least equivalent to an average driving distance of 15 full fuel tanks. However, in the case of the option in paragraph 3.5. of this appendix, where the manufacturer chooses to start the warning system at a distance which may not be less than 2,400 km before the reagent tank becomes empty, the above restrictions on a minimum reagent tank capacity shall not apply.
- 1.2. In the context of this appendix, the term "average driving distance" shall be taken to be derived from the fuel or reagent consumption during a Type 1 test for the driving distance of a fuel tank and the driving distance of a reagent tank respectively."

Paragraph 2.1., amend to read:

- "2.1. The vehicle shall include a specific indicator on the dashboard that informs the driver when reagent levels are below the threshold values specified in paragraph 3.5. of this appendix."

Paragraph 3.1., amend to read:

- "3.1. The vehicle shall include a warning system consisting of visual alarms that informs the driver when an abnormality is detected in the reagent dosing e.g. when emissions are too high, the reagent level is low, reagent dosing is interrupted, or the reagent is not of a quality specified by the manufacturer. The warning system may also include an audible component to alert the driver."

Paragraph 3.4., amend the last sentence to read:

- "3.4. . . . The continuous warning system may be temporarily interrupted by other warning signals providing that they are important safety related messages."

Paragraph 3.5., amend to read:

- "3.5. The warning system shall activate at a distance equivalent to a driving range of at least 2,400 km in advance of the reagent tank becoming empty, or at the choice of the manufacturer at the latest when the level of reagent in the tank reaches one of the following levels:
- (a) A level expected to be sufficient for driving 150 per cent of an average driving range with a complete tank of fuel; or
 - (b) 10 per cent of the capacity of the reagent tank,
- whichever occurs earlier."

Paragraph 5.5., amend to read:

- "5.5. In the case of interruption in reagent dosing activity the driver warning system as referred to in paragraph 3. shall be activated, which shall display a message

indicating an appropriate warning. Where the reagent dosing interruption is initiated by the engine system because the vehicle operating conditions are such that the vehicle's emission performance does not require reagent dosing, the activation of the driver warning system as referred to in paragraph 3 may be omitted, provided that the manufacturer has clearly informed the Type Approval Authority when such operating conditions apply. If the reagent dosing is not rectified within 50 km of the activation of the warning system then the driver inducement requirements of paragraph 8. below shall apply."

Paragraph 6.2., amend the first sub-paragraph to read:

"6.2. The manufacturer shall demonstrate that use of the sensors referred to in paragraph 6.1. above and any other sensors on the vehicle, results in the activation of the driver warning system as referred to in paragraph 3. above, the display of a message indicating an appropriate warning (e.g. "emissions too high - check urea", "emissions too high - check AdBlue", "emissions too high - check reagent"), and the activation of the driver inducement system as referred to in paragraph 8.3. below, when the situations referred to in paragraphs 4.2., 5.4. or 5.5. above occur."
