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### Economic Commission for Europe

#### Inland Transport Committee

#### World Forum for Harmonization of Vehicle Regulations

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Item 4.9.2 of the provisional agenda

##### 1958 Agreement :

Consideration of draft amendments

to existing Regulations submitted by GRPE

### **Proposal for Supplement 4 to the 07 series of amendments to Regulation No. 83 (Emissions of M<sub>1</sub> and N<sub>1</sub> vehicles)**

#### **Submitted by the Working Party on Pollution and Energy\***

The text reproduced below was adopted by the Working Party on Pollution and Energy (GRPE) at its seventy-third session (ECE/TRANS/WP.29/GRPE/73, para. 9). It is based on ECE/TRANS/WP.29/GRPE/2016/10 and ECE/TRANS/WP.29/GRPE/2016/11. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee AC.1 for consideration at their November 2016 sessions.

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\* In accordance with the programme of work of the Inland Transport Committee for 2014–2018 (ECE/TRANS/240, para. 105 and ECE/TRANS/2014/26, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

## Supplement 4 to the 07 series of amendments to Regulation No. 83 (Emissions of M<sub>1</sub> and N<sub>1</sub> vehicles)

*Paragraph 7.1.4.1.*, amend to read:

"7.1.4.1. Identical parameters for extending approval are:

Engine:

(a) Combustion process.

Periodically regenerating system (i.e. catalyst, particulate trap):

(a) Construction (i.e. type of enclosure, type of precious metal, type of substrate, cell density);

(b) Type and working principle;

(c) Dosage and additive system;

(d) Volume  $\pm 10$  per cent;

(e) Location (temperature  $\pm 50$  °C at 120 km/h or 5 per cent difference of maximum temperature/pressure)."

*Appendix 6*, insert a new paragraph 8.1.1., to read:

"8.1.1. The requirement for a driver inducement system shall not apply to vehicles designed and constructed for use by the rescue services, armed services, civil defence, fire services and forces responsible for maintaining public order. Permanent deactivation of the driver inducement system for these vehicles shall only be done by the vehicle manufacturer."

*Annex 2, Addendum, item 2.1.1.*, amend to read:

"2.1.1. For bi fuel vehicles, the type I table shall be repeated for both fuels. For flex fuel vehicles, when the type I test is to be performed on both fuels according to Table A of this Regulation and for vehicles running on LPG or NG/Biomethane, either mono fuel or bi fuel, the table shall be repeated for the different reference gases used in the test, and an additional table shall display the worst results obtained. When applicable, in accordance with paragraphs 3.1.4. and 3.1.5. of Annex 12 to this Regulation, it shall be shown if the results are measured or calculated."

*Annex 4a, Appendix 3, paragraph 1.2.12.6.*, amend to read:

"1.2.12.6. The HFID shall be used with a constant flow (heat exchanger) system to ensure a representative sample, unless compensation for varying CVS volume flow is made."

*Annex 10, Type: Petrol (E10) table*, amend to read:

"

...	...	...	...
Water content	% v/v	max 0.05	EN 12937

Appearance at -7 °C		Clear and bright	
...	...	...	...

*Annex 11,*

*Paragraph 3.3.3.1., amend to read:*

"3.3.3.1. The reduction in the efficiency of the catalytic converter with respect to emissions of NMHC and NO<sub>x</sub>. Manufacturers may monitor the front catalyst alone or in combination with the next catalyst(s) downstream. Each monitored catalyst or catalyst combination shall be considered malfunctioning when the emissions exceed the NMHC or NO<sub>x</sub> threshold limits provided for by paragraph 3.3.2. of this annex."

*Paragraph 3.3.3.4., amend to read:*

"3.3.3.4. If active on the selected fuel, other emission control system components or systems, or emission related power train components or systems which are connected to a computer, the failure of which may result in tailpipe emissions exceeding the OBD threshold limits given in paragraph 3.3.2. of this annex."

*Paragraph 3.3.4.4., amend to read:*

"3.3.4.4. Other emission control system components or systems, or emission-related power-train components or systems, which are connected to a computer, the failure of which may result in exhaust emissions exceeding the OBD threshold limits given in paragraph 3.3.2. of this annex. Examples of such systems or components are those for monitoring and control of air mass-flow, air volumetric flow (and temperature), boost pressure and inlet manifold pressure (and relevant sensors to enable these functions to be carried out)."

*Paragraphs 3.3.5. to 3.3.5.2., amend to read:*

"3.3.5. Manufacturers may demonstrate to the Type Approval Authority that certain components or systems need not be monitored if, in the event of their total failure or removal, emissions do not exceed the OBD threshold limits given in paragraph 3.3.2. of this annex.

3.3.5.1. The following devices should however be monitored for total failure or removal (if removal would cause the applicable emission limits in paragraph 5.3.1.4. of this Regulation to be exceeded):

- (a) A particulate trap fitted to compression ignition engines as a separate unit or integrated into a combined emission control device;
- (b) A NO<sub>x</sub> after treatment system fitted to compression ignition engines as a separate unit or integrated into a combined emission control device;
- (c) A Diesel Oxidation Catalyst (DOC) fitted to compression ignition engines as a separate unit or integrated into a combined emission control device.

3.3.5.2. The devices referred to in paragraph 3.3.5.1. of this annex shall also be monitored for any failure that would result in exceeding the applicable OBD threshold limits."