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Item 5(a) of the provisional agenda

Tractors and Non-Road Mobile Machinery –

Global technical regulation No. 11

Proposal for Corrigendum 2 to global technical regulation No. 11

Submitted by the expert from the European Commission *

The text reproduced below was prepared by the expert from the European Commission to introduce an editorial correction to the text of global technical regulation (gtr) No. 11 concerning the test procedure for compression-ignition engines to be installed in agricultural and forestry tractors and in non-road mobile machinery with regard to the emissions of pollutants by the engine. This document is based on Informal document No. GRPE-61-04 distributed at the sixty-first session of the Working Party on Pollution and Energy (GRPE) (ECE/TRANS/WP.29/GRPE/61, para. 4). Modifications to the current text of the gtr are marked in bold for new or strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106 and ECE/TRANS/2010/8, 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.

I. Proposal

Paragraph A.8.1.1., amend to read:

"A.8.1.1. Determination of methane and non-methane HC concentration

The calculation

.....

The concentration of NMHC (c_{NMHC} [-]) and CH₄ (c_{CH_4} [-]) shall be calculated as follows for (a):

$$c_{\text{NMHC}} = \frac{c_{\text{HC(w/NMC)}} - c_{\text{HC(w/oNMC)}} \cdot (1 - E_{\text{C}_2\text{H}_6})}{RF_{\text{CH}_4[\text{THC-FID}]} \cdot (E_{\text{C}_2\text{H}_6} - E_{\text{CH}_4})} \quad (\text{A.8-1a})$$

$$c_{\text{CH}_4} = \frac{c_{\text{HC(w/oNMC)}} \cdot (1 - E_{\text{CH}_4}) - c_{\text{HC(w/NMC)}}}{E_{\text{C}_2\text{H}_6} - E_{\text{CH}_4}} \quad (\text{A.8-2a})$$

$$c_{\text{NMHC}} = \frac{c_{\text{HC(w/oNMC)}} \cdot (1 - E_{\text{CH}_4}) - c_{\text{HC(w/NMC)}}}{E_{\text{C}_2\text{H}_6} - E_{\text{CH}_4}} \quad (\text{A.8-1a})$$

$$c_{\text{CH}_4} = \frac{c_{\text{HC(w/NMC)}} - c_{\text{HC(w/oNMC)}} \cdot (1 - E_{\text{C}_2\text{H}_6})}{RF_{\text{CH}_4[\text{THC-FID}]} \cdot (E_{\text{C}_2\text{H}_6} - E_{\text{CH}_4})} \quad (\text{A.8-2a})$$

..."

Appendix 2

Paragraph A.8.1.1., amend to read:

"A.8.1.1. Determination of methane and non-methane HC concentration

The calculation

.....

The concentration of NMHC (c_{NMHC} [-]) and CH₄ (c_{CH_4} [-]) shall be calculated as follows for (a):

$$c_{\text{NMHC}} = \frac{c_{\text{HC(w/NMC)}} - c_{\text{HC(w/oNMC)}} \cdot (1 - E_{\text{C}_2\text{H}_6})}{RF_{\text{CH}_4[\text{THC-FID}]} \cdot (E_{\text{C}_2\text{H}_6} - E_{\text{CH}_4})} \quad (\text{A.8-1a})$$

$$c_{\text{CH}_4} = \frac{c_{\text{HC(w/oNMC)}} \cdot (1 - E_{\text{CH}_4}) - c_{\text{HC(w/NMC)}}}{E_{\text{C}_2\text{H}_6} - E_{\text{CH}_4}} \quad (\text{A.8-2a})$$

$$c_{\text{NMHC}} = \frac{c_{\text{HC(w/oNMC)}} \cdot (1 - E_{\text{CH}_4}) - c_{\text{HC(w/NMC)}}}{E_{\text{C}_2\text{H}_6} - E_{\text{CH}_4}} \quad (\text{A.8-1a})$$

$$c_{\text{CH}_4} = \frac{c_{\text{HC(w/NMC)}} - c_{\text{HC(w/oNMC)}} \cdot (1 - E_{\text{C}_2\text{H}_6})}{RF_{\text{CH}_4[\text{THC-FID}]} \cdot (E_{\text{C}_2\text{H}_6} - E_{\text{CH}_4})} \quad (\text{A.8-2a})$$

..."

II. Justification

This proposal intends to correct a mistake on the right sides of equations A.8-1a and A.8-2a, which were interchanged. ECE/TRANS/WP.29/GRPE/2011/9 proposes to insert the same correction into gtr No. 4 on the Worldwide harmonized Heavy Duty Certification procedure (WHDC).
