

INFORMAL GROUP ON GASEOUS FUEL VEHICLES
Within the UN GRPE (WP29)

Please submit new work items to:

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Regulation name and reference number

Regulation no. 115.

Name of Amendment/Work Item

Document ECE/TRANS/WP.29/2012/109 adopted in WP29 158th session.

Reference to FC (Fuel Consumption) in the calculation of gas energy ratios.

Specific language for Amendment/Work Item

English

Rationale: (Why is it important/required?)

In Annex 6A and 6B (see Document ECE/TRANS/WP.29/2012/109), the formulae respectively for the calculation of G_{lpg} and G_{cng} refer to FC_{mean} as defined in paragraphs 6.1.2.4.3.2. (LPG) and 6.2.2.4.3.2. (CNG)

FC_{mean} is the mean value of the FC's calculated on all the parent (tested) vehicles, whereas the calculation of gas ratio is to be made for each parent vehicle.

Therefore, in order to ensure the right consistency, FC_{mean} has to be replaced by FC_{norm} as defined in R. 101 (see amendment to R. 83 - Document ECE/TRANS/WP.29/2012/104 – Annex 12 – Appendix 1 and 2)

Proposal:

Annex 6A, par. 2, amend to read:

“2. Calculation of the LPG energy ratio

.....

$$GLPG = MLPG * 10,000 / (FC_{mean\ norm} * dist * d)$$

Where:

.....

~~FC_{mean}: the mean fuel consumption (l/100 km) calculated in accordance with paragraph 6.1.2.4.3.2.;~~

FC_{norm}: the fuel consumption (l/100 km) calculated in accordance with paragraph 1.4.3. (b) of Annex 6 to Regulation No. 101. If applicable, the correction factor cf in the equation used to determine FC_{norm} shall be calculated using the H/C ratio of the gaseous fuel;

.....”

Annex 6B, par. 2, amend to read:

“2. Calculation of the CNG energy ratio

.....

$$GCNG = MCNG * cf * 10,000 / (FC_{mean\ norm} * dist * d)$$

Where:

~~FC_{mean}: the mean fuel consumption (m³/100 km) calculated in accordance with paragraph 6.2.2.4.3.2.;~~

FC_{norm}: the fuel consumption (m³/100 km) calculated in accordance with paragraph 1.4.3. (c) of Annex 6 to Regulation No. 101;

.....”