Submitted by the expert from Japan

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agenda item 4 (b)

Proposal for amendments to UN Global Technical Regulation No. 4 (World-wide harmonized Heavy Duty Certification procedure (WHDC)) amending ECE/TRANS/WP.29/GRPE/2021/7

I. Proposal

Paragraph 8.1.1., Equation (15) and (16), *amend to read:*

"8.1.1. Raw exhaust gas

…

$$k_{w,a} = \left(1 - \frac{1.2442 \times H_a + 111.19 \times w_{ALF} \times \frac{q_{mf,i}}{q_{mad,i}}}{773.4 + 1.2442 \times H_a + \frac{q_{mf,i}}{q_{mad,i}} \times \cancel{k_f} \times \cancel{1{,}000} \times \boldsymbol{k_{f,w}} \times \boldsymbol{1{,}000}}\right) \times 1.008 \qquad (15)$$

$$k_{w,\cancel{a}r} = \left(1 - \frac{1.2442 \times H_a + 111.19 \times w_{ALF} \times \frac{q_{mf,i}}{q_{mad,i}}}{773.4 + 1.2442 \times H_a + \frac{q_{mf,i}}{q_{mad,i}} \times \cancel{k_f} \boldsymbol{k_{f,w}} \times 1{,}000}\right) \times 1.008 \qquad (15)$$

…

$$k_{w,a} = \left(1 - \frac{1.2442 \times H_a + 111.19 \times w_{ALF} \times \frac{q_{mf,i}}{q_{mad,i}}}{773.4 + 1.2442 \times H_a + \frac{q_{mf,i}}{q_{mad,i}} \times \cancel{k_f} \times \cancel{1{,}000} \times \boldsymbol{k_{f,w}} \times \boldsymbol{1{,}000}}\right) \Big/ \left(1 - \frac{p_r}{p_b}\right) \qquad (16)$$

$$k_{w,\cancel{a}r} = \left(1 - \frac{1.2442 \times H_a + 111.19 \times w_{ALF} \times \frac{q_{mf,i}}{q_{mad,i}}}{773.4 + 1.2442 \times H_a + \frac{q_{mf,i}}{q_{mad,i}} \times \cancel{k_f} \boldsymbol{k_{f,w}} \times 1{,}000}\right) \Big/ \left(1 - \frac{p_r}{p_b}\right) \qquad (16)$$

"

Paragraph 8.1.1., Equation (17), *amend to read:*
"$k_{w,\cancel{a}r=}$…"

II. Justification

These are editorial corrections for the formula in the Working Document ECE/TRANS/WP.29/GRPE/2021/7.