Commission Implementing Regulation (EU) 2018/1003 of 16 July 2018 amending Implementing Regulation (EU) 2017/1152 to clarify and simplify the correlation procedure and to adapt it to changes to Regulation (EU) 2017/1151 (Text with EEA relevance)

COMMISSION IMPLEMENTING REGULATION (EU) 2018/1003

of 16 July 2018

amending Implementing Regulation (EU) 2017/1152 to clarify and simplify the correlation procedure and to adapt it to changes to Regulation (EU) 2017/1151

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) No 510/2011 of the European Parliament and of the Council of 11 May 2011 setting emission performance standards for new light commercial vehicles as part of the Union's integrated approach to reduce CO_2 emissions from light duty vehicles[(1)], and in particular the third subparagraph of Article 13(6) thereof,

Whereas:

(1) Based on the experience gained from the implementation of Commission Regulation (EU) 2017/1151[(2)] and Commission Implementing Regulation (EU) 2017/1152[(3)], it has become evident that certain elements of the latter Regulation should be amended.

(2) It is necessary to complement the existing method for defining the end-points of the interpolation line used for calculating the NEDC CO_2 emission value of an individual vehicle. Those end-points, which are represented by a test vehicle with the highest CO_2 emission values, and test vehicle with the lowest values, should be defined so that the difference between the two test vehicles high and low is equal to or higher than 5 g CO_2/km.

(3) In order to avoid that the CO_2 emission values of individual vehicles are determined on the basis of interpolation lines that do not provide the minimum difference, it is appropriate that this amendment enters into force without delay.

(4) Where for the purpose of type approval under Regulation (EU) 2017/1151, road load matrix families are used, the calculation of the NEDC CO_2 emission value of an individual vehicle belonging to such a family should be simplified by deriving the road load coefficients to be used for the calculation of the NEDC CO_2 value from the road load coefficients of the individual vehicle as determined under Regulation (EU) 2017/1151.

(5) As regards incomplete N1 vehicles, the amendment to Annex XII to Regulation (EU) 2017/1151 should be taken into account for the purpose of the determination of the road load coefficients to be used as input to the correlation tool.

Changes to legislation: *There are currently no known outstanding effects for the Commission Implementing Regulation (EU) 2018/1003. (See end of Document for details)*

(6) In order to ensure a robust correlation output, it is appropriate to add the number of cylinders as an input to be provided for the correlation tool.

(7) The opportunity should also be taken to correct some editorial errors in the text.

(8) The measures provided for in this Regulation are in accordance with the opinion of the Climate Change Committee,

HAS ADOPTED THIS REGULATION:

Article 1

Annex I to Implementing Regulation (EU) 2017/1152 is amended in accordance with the Annex to this Regulation

Article 2

This Regulation shall enter into force on the seventh day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 16 July 2018.

For the Commission

The President

Jean-Claude JUNCKER

***Changes to legislation:** There are currently no known outstanding effects for the Commission Implementing Regulation (EU) 2018/1003. (See end of Document for details)*

ANNEX

Annex I is amended as follows:

(1) point 2.3.8.1 is replaced by the following:

2.3.8.1. In the case of WLTP road loads being determined in accordance with paragraphs 1-4 and 6 of Sub-Annex 4 to Annex XXI to Regulation (EU) 2017/1151

The NEDC road load coefficients for complete N1 vehicles shall be calculated in accordance with the formulae specified in point 2.3.8.1.1 (for vehicle H) and in point 2.3.8.1.2 (for vehicle L) and in accordance with the following points (a) and (b).

Unless otherwise specified, the formulae shall apply both in the case of simulations and in the case of physical vehicle tests.

The type approval authority, or where applicable, the technical service shall verify if the wind-tunnel facility referred to in paragraph 3.2.3.2.2.3 in Sub-Annex 7 to Annex XXI to Regulation (EU) 2017/1151 is qualified to accurately determine the Δ(Cd × Af) values. If the wind-tunnel facility is not qualified, the highest aerodynamic drag value shall apply for all vehicles in the family.

(a) The WLTP road load coefficients and test mass values referred to in those formulae shall be those resulting from vehicle H and L as defined for the interpolation family pursuant to Regulation (EU) 2017/1151.

(b) Notwithstanding point (a), where the cycle energy demand of the WLTP vehicle H and/or L, as determined in accordance with paragraph 5 of Sub-Annex 7 to Annex XXI to Regulation (EU) 2017/1151, does not result in the highest, or respectively, the lowest cycle energy demand for the NEDC vehicle H and/or L, the NEDC road load coefficients shall be determined in accordance with either of the following:

(i) on the basis of the individual vehicle in the interpolation family with the highest, or respectively, the lowest NEDC cycle energy demand;

(ii) on the basis of the combination of the highest, or respectively, the lowest of each of the road load relevant characteristics, i.e. aerodynamic drag, rolling resistance and mass, taken from any individual vehicle in the interpolation family.

The choice of the procedure set out in points (i) or (ii) shall be made by the manufacturer.

Point (b) shall apply for new emission type approvals granted from 1 January 2019, or from an earlier date at the manufacturer's request.;

(2) in point 2.3.8.1.1 the following is inserted as first paragraph:

Where this calculation procedure is used for an individual vehicle in accordance with point 4.2.1.4.2, the WLTP road loads and test mass corresponding to the NEDC individual vehicle shall be used with the influence of the optional equipment removed.;

(3) the final paragraph of point 2.3.8.1.1.(c) is replaced by the following:

Changes to legislation: *There are currently no known outstanding effects for the Commission Implementing Regulation (EU) 2018/1003. (See end of Document for details)*

Where the factor $F^*_{2w,H}$ is the road load coefficient F_2 determined for the WLTP test of vehicle H from which the effect of all optional equipment has been removed.;

(4) the final paragraph of point 2.3.8.1.2.(c) is replaced by the following:

Where the factor $F^*_{2w,L}$ is the road load coefficient F_2 determined for the WLTP test of vehicle L from which the effect of all optional equipment has been removed.;

(5) point 2.3.8.2.1.(b) is replaced by the following:

(b) NEDC road load coefficients where the NEDC tabulated values are not used

In the case of vehicles designed for a technically permissible maximum laden mass equal to or exceeding 3 000 kg, the NEDC road load coefficients may, at the request of the manufacturer, be determined in accordance with point 2.3.8.1.;

(6) point 2.3.8.2.2 is replaced by the following:

2.3.8.2.2. Road load determination for incomplete N1 vehicles in accordance with point 2.2 of Annex XII to Regulation (EU) 2017/1151

In the case of an incomplete N1 vehicle where the road loads of the representative vehicle has been determined in accordance with paragraph 2.2 of Annex XII and paragraph 5.1 of Sub-Annex 4 to Annex XXI to Regulation (EU) 2017/1151, the NEDC road load to be used as input for the correlation tool simulations shall be determined as follows:

$$F_{0n,R} = T_{0n,R} + \left(\frac{F_{0W,L} - A_{W,L} + F_{0W,H} - A_{W,H}}{2}\right)$$

$$F_{1n,R} = \frac{F_{1W,L} - B_{W,L} + F_{1W,H} - B_{W,H}}{2}$$

$$F_{2n,R} = T_{2n,R} + \left(\frac{F_{2W,L} - C_{W,L} + F_{2W,H} - C_{W,H}}{2}\right)$$

Where,

$F_{0n,R}$, $F_{1n,R}$, $F_{2n,R}$	are the NEDC road load coefficients for the representative vehicle;
$T_{0n,R}$, $T_{2n,R}$	are the NEDC chassis dynamometer coefficients for the representative vehicle determined in accordance with Table 3 of Annex 4a to UN/ECE Regulation No 83;
$A_{W,L/H,}$ $B_{W,L/H,}$ $C_{W,L/H}$	are the chassis dynamometer coefficients for the vehicle used for the preparation of the chassis dynamometer in accordance with points 7 and 8 of Sub-Annex 4 to Annex XXI to Regulation (EU) 2017/1151

In the case of a physical vehicle testing, the test shall be performed with the NEDC chassis dynamometer coefficients for vehicle R determined in accordance with Table 3 of Annex 4a to UN/ECE Regulation No 83.;

(7) the following point 2.3.8.3(a) is added:

2.3.8.3(a). Extensions of emission approvals granted pursuant to Regulation (EU) 2017/1151