

**From:** [REDACTED] [[mailto:\[REDACTED\]@acea.be](mailto:[REDACTED]@acea.be)]

**Sent:** Monday, June 13, 2016 4:17 PM

**To:** [REDACTED] (GROW); [REDACTED] (GROW); [REDACTED] (GROW)

**Subject:** RDE changes to TCMV on 14 June

Dear [REDACTED],

We have seen the attached amendments on RDE on the TCMV agenda for tomorrow. They deal with the requirements for measuring vehicle speed and acceleration.

According to our knowledge, these changes **have never been discussed with ACEA, perhaps with other stakeholders?** We do not know who has proposed these changes.

The independent expert [REDACTED] (and our experts) have looked at the proposals and advise that they definitely need further consideration. The concerns simply revolve around the accuracy of various technical means of measuring speed and acceleration.

If the Commission wishes to make a change to these points we should ensure they had been fully validated before the regulation is changed – this could be done quite speedily.

Most grateful these views are taken into account.

best regards,

[REDACTED]

[REDACTED]

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## EUROPEAN COMMISSION

Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs

Industrial Transformation and Advanced Value Chains  
**Automotive and Mobility Industries**

Brussels, 10 June 2016  
GROW.C.4

### NOTE TO THE ATTENTION OF THE MEMBERS OF THE TECHNICAL COMMITTEE MOTOR-VEHICLES

**Subject: Draft Commission Regulation correcting Regulation (EC) No 692/2008 implementing and amending Regulation (EC) No 715/2007 of the European Parliament and of the Council on type-approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information – correction of a mathematical formula**

The draft Regulation referred to above aims at correcting an error in the text of Annex IIIA to Regulation (EC) 692/2008 as amended by Commission Regulation (EU) 2016/646 (2nd RDE Regulation). The text is extremely complex and technical and as a result, an error slipped into the text of a mathematical formula.

Therefore, in section 3.1.1 of Appendix 7a to Annex IIIA to Regulation (EC) 692/2008, the text as adopted reads:

*"If  $a_{res} \leq 0.01 \text{ m/s}^2$ , the vehicle speed measurement is accurate enough.  
If  $0.01 \llbracket \langle a \rrbracket_{res} \leq r_{max} \text{ m/s}^2$ , smoothing by using a T4253H Hanning filter.  
If  $a_{res} > r_{max} \text{ m/s}^2$ , the trip is invalid."*<sup>1</sup>,

when it should read:

*" If  $a_{res} \leq 0.01 \text{ m/s}^2$ , the vehicle speed measurement is accurate enough.  
If  $0.01 \text{ m/s}^2 < a_{res}$ , data smoothing by using a T4253H Hanning filter shall be performed."*

It should be noted that  $r_{max}$  was included by mistake in the text in the final agreed version. The parameter  $a_{res}$  stands for the resolution of the acceleration of the vehicle and is defined in section 2 of Appendix 7a of Annex IIIA of Regulation (EC) 692/2008. The parameter  $r_{max}$  is not defined, which is the core of the problem. The formula then cannot be applied, since a parameter is undefined.

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<sup>1</sup> L 109/11, <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0646&from=EN>.

The consequences of a wrong interpretation could be that a higher number of PEMS trips would appear not to be valid according to the wrongly interpreted legal text, while they should actually be valid. This would generate unnecessary higher testing costs and render the monitoring phase less valuable with respect to the application of the future RDE legislation. It is, therefore, important to correct the text.

[REDACTED]



Brussels, **XXX**

xxx

**[...]**(2016) **XXX** draft

## **COMMISSION REGULATION (EU) .../...**

**of **XXX****

**correcting Regulation (EC) No 692/2008 implementing and amending Regulation (EC) No 715/2007 of the European Parliament and of the Council on type-approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information**

(Text with EEA relevance)

# COMMISSION REGULATION (EU) .../...

of **XXX**

**correcting Regulation (EC) No 692/2008 implementing and amending Regulation (EC) No 715/2007 of the European Parliament and of the Council on type-approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information**

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (EC) No 715/2007 of the European Parliament and of the Council of 20 June 2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information<sup>1</sup>, and in particular Article 5(3) thereof,

Whereas:

- (1) Regulation (EC) No 715/2007 requires new light-duty vehicles to comply with certain emission limits and lays down additional requirements on access to information. The specific technical provisions necessary to implement that Regulation were adopted by Commission Regulation (EC) No 692/2008<sup>2</sup>.
- (2) Commission Regulation (EU) 2016/646<sup>3</sup> amended Regulation (EC) No 692/2008 by setting out the quantitative real driving emissions requirements in order to limit tailpipe emissions under all normal conditions of use.
- (3) As a consequence of that amendment, an error appeared in Appendix 7a to Annex IIIA to Regulation (EC) No 692/2008, which concerns the verification of overall trip dynamics. The error affects a mathematical formula regarding data pre-processing for the calculations of the trip indicators. The *r\_max* parameter has been included in the formula by mistake.
- (4) Regulation (EC) No 692/2008 should therefore be corrected.
- (5) In order to limit the impact of the application of the incorrect formula, this Regulation should enter into force as a matter of urgency.
- (6) The measures provided for in this Regulation are in accordance with the opinion of the Technical Committee — Motor Vehicles,

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<sup>1</sup> OJ L 171, 29.6.2007, p. 1.

<sup>2</sup> Commission Regulation (EC) No 692/2008 of 18 July 2008 implementing and amending Regulation (EC) No 715/2007 of the European Parliament and of the Council on type-approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information (OJ L 199, 28.7.2008, p. 1).

<sup>3</sup> Commission Regulation (EU) 2016/646 of 20 April 2016 amending Regulation (EC) No 692/2008 as regards emissions from light passenger and commercial vehicles (Euro 6) (OJ L 109, 16.4.2016, p. 1).

HAS ADOPTED THIS REGULATION:

#### *Article 1*

In Appendix 7a to Annex IIIA to Regulation (EC) 692/2008, point 3.1.1. is replaced by the following :

##### "3.1.1. Data pre-processing

Dynamic parameters like acceleration,  $v \cdot a_{pos}$  or RPA shall be determined with a speed signal of an accuracy of 0,1 % above 3 km/h and a sampling frequency of 1 Hz. This accuracy requirement is generally fulfilled by wheel (rotational) speed signals.

The speed trace shall be checked for faulty or implausible sections. The vehicle speed trace of such sections is characterised by steps, jumps, terraced speed traces or missing values. Short faulty sections shall be corrected, for example by data interpolation or benchmarking against a secondary speed signal. Alternatively, short trips containing faulty sections could be excluded from the subsequent data analysis. In a second step the acceleration values shall be ranked in ascending order, in order to determine the acceleration resolution  $a_{res} = (\text{minimum acceleration value} > 0)$ .

If  $a_{res} \leq 0.01 \text{ m/s}^2$ , the vehicle speed measurement is accurate enough.

If  $0.01 \text{ m/s}^2 < a_{res}$ , data smoothing by using a T4253H Hanning filter shall be performed.

The T4253 Hanning filter performs the following calculations: The smoother starts with a running median of 4, which is centred by a running median of 2. It then re-smoothes these values by applying a running median of 5, a running median of 3, and Hanning (running weighted averages). Residuals are computed by subtracting the smoothed series from the original series. This whole process is then repeated on the computed residuals. Finally, the smoothed residuals are computed by subtracting the smoothed values obtained the first time through the process.

The correct speed trace builds the basis for further calculations and binning as described in paragraph 3.1.2."

#### *Article 2*

This Regulation shall enter into force on the third 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,

*For the Commission*  
*The President*  
*Jean-Claude Juncker*