Commission Regulation (EU) 2018/1832 of 5 November 2018 amending Directive 2007/46/EC of the European Parliament and of the Council, Commission Regulation (EC) No 692/2008 and Commission Regulation (EU) 2017/1151 for the purpose of improving the emission type approval tests and procedures for light passenger and commercial vehicles, including those for in-service conformity and real-driving emissions and introducing devices for monitoring the consumption of fuel and electric energy (Text with EEA relevance)

COMMISSION REGULATION (EU) 2018/1832

of 5 November 2018

amending Directive 2007/46/EC of the European Parliament and of the Council, Commission Regulation (EC) No 692/2008 and Commission Regulation (EU) 2017/1151 for the purpose of improving the emission type approval tests and procedures for light passenger and commercial vehicles, including those for in-service conformity and real-driving emissions and introducing devices for monitoring the consumption of fuel and electric energy

(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[(1)], and in particular Articles 5(3) and 14(3) thereof,

Having regard to Directive 2007/46/EC of the European Parliament and of the Council of 5 September 2007 establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles (Framework Directive)[(2)], and in particular Article 39(2) thereof,

Whereas:

(1) Regulation (EC) No 715/2007 is a separate act under the type-approval procedure laid down by Directive 2007/46/EC. It requires new light passenger and commercial vehicles to comply with certain emission limits and lays down additional requirements on access to vehicle repair and maintenance information. The specific technical provisions necessary to implement that Regulation are contained in Commission Regulation (EU) 2017/1151[(3)], which replaces and repeals Commission Regulation (EC) No 692/2008[(4)].

(2) Some of the effects of Commission Regulation (EC) No 692/2008 remain until it is repealed as from 1 January 2022. However, it is necessary to clarify that such effects include the possibility to request extensions of existing type-approvals granted under this Regulation.

Changes to legislation: *There are currently no known outstanding effects for the Commission Regulation (EU) 2018/1832. (See end of Document for details)*

(3) By Regulation (EU) 2017/1151, a new regulatory test procedure implementing the Worldwide Harmonised Light Vehicles Test Procedure (WLTP) was introduced into Union legislation. The WLTP contains stricter and more detailed conditions for the execution of the emissions tests at type approval.

(4) In addition, by Commission Regulations (EU) 2016/427[(5)], (EU) 2016/646[(6)] and (EU) 2017/1154[(7)] a new methodology for testing vehicle emissions in real-driving conditions, the RDE test procedure, was introduced.

(5) In order for the WLTP test to be possible, some margin of tolerance is necessary. However, the test tolerance should not be exploited to obtain results different from those associated with the execution of the test at set-point conditions. Therefore, in order to provide a level playing field among different vehicle manufacturers and to ensure that the measured CO_2 and fuel consumption values are more in line with real life, a method to normalise the impact of specific test tolerances on CO_2 and fuel consumption test results should be introduced.

(6) The fuel and/or electric energy consumption values resulting from the regulatory laboratory test procedures should be complemented by information on the vehicles' average real-world consumption when used on the road. Such information, once anonymised, collected and aggregated, is essential for assessing that the regulatory test procedures adequately reflect the average real world CO_2 emissions as well as the fuel and/or electric energy consumed. Moreover, the availability at the vehicle of instantaneous fuel consumption information should facilitate on-road testing.

(7) To ensure a timely assessment of the representativeness of the new regulatory test procedures, in particular for vehicles with large market shares, the scope of the new requirements for on-board fuel consumption monitoring should be in a first instance limited to conventional and hybrid vehicles running on liquid fuels and to plug-in hybrid vehicles, as these are to-date the only powertrains covered by corresponding technical standards.

(8) The quantity of fuel and/or electric energy used is already being determined and stored on board of most new vehicles; however, the devices presently used to monitor this information are not subject to standardised requirements. In order to ensure that the data provided by these devices are accessible and may serve as a harmonised basis for a comparison between different vehicle categories and manufacturers, basic type-approval requirements with regard to the devices should be laid down.

(9) Regulation (EU) 2016/646 introduced the requirement for the manufacturers to declare the use of auxiliary emission strategies. In addition, Regulation (EU) 2017/1154 increased the supervision of emission strategies by the type approval authorities. However, the application of those requirements has highlighted the need to harmonise the application of the rules on auxiliary emission strategies by the different type approval authorities. Therefore it is appropriate to lay down a common format for the extended documentation package and a common methodology for the assessment of auxiliary emission strategies.

(10) The decision to allow access, if requested, to the manufacturer's extended documentation package should be left to the national authorities and therefore the confidentiality clause linked to this document should be deleted from Regulation (EU) 2017/1151. This deletion should be without prejudice to the uniform application of the legislation throughout the Union, as well as the possibility for all parties to access all relevant information for conducting RDE testing.

(11) After the introduction of the RDE tests at the stage of type approval, it is now necessary to update the rules on in-service conformity checks in order to ensure that the real driving emissions are also effectively limited during the normal life of the vehicles under normal conditions of use.

(12) The application of the new RDE during in-service conformity checks will require more resources for the performance of the in-service conformity testing of a vehicle and the evaluation of its results. In order to balance the need to perform effective in-service conformity tests with the increased testing burden, the maximum number of vehicles in a statistical sample and the pass and fail criteria for the sample applicable to all in-service conformity testing should be adapted.

(13) In-service conformity checks currently cover only pollutant emissions measured through the Type 1 test. However, in order to ensure that the requirements of Regulation (EC) No 715/2007 are met, they should be extended to tailpipe and evaporative emissions. Therefore, Type 4 and Type 6 tests should be introduced for the purposes of in-service conformity tests. Due to the cost and complexity of such tests, they should remain optional.

(14) A review of the current in-service conformity tests, performed by the manufacturers, revealed that very few fails were reported to type approval authorities although recall campaigns and other voluntary actions related to emissions were implemented by the manufacturers. Therefore, it is necessary to introduce more transparency and control in the in-service conformity checks.

(15) In order to control the in-service conformity process more effectively, type approval authorities should be responsible for performing tests and checks on a percentage of the approved vehicle types each year.

(16) In order to facilitate the information flows generated by in-service conformity testing, as well as to assist type-approval authorities in the decision making process, an electronic platform should be developed by the Commission.

(17) In order to improve the vehicle selection process for the testing by type-approval authorities, information is needed that could identify potential problems and vehicle types with high emissions. Remote sensing, simplified on-board emissions monitoring systems (SEMS) and testing with portable emission measurement systems (PEMS) should be recognised as valid tools for providing information to the type-approval authorities that can guide the selection of vehicles to test.

(18) Ensuring the quality of the in-service conformity tests is essential. It is therefore necessary to lay down the rules on the accreditation of testing laboratories.

Changes to legislation: *There are currently no known outstanding effects for the Commission Regulation (EU) 2018/1832. (See end of Document for details)*

(19) In order to allow testing, all relevant information needs to be publicly accessible. In addition, some of the information needed for the performance of in-service conformity checks should be easily available and should therefore be indicated in the certificate of conformity.

(20) In order to increase the transparency of the in-service conformity process, type approval authorities should be required to publish an annual report with the results of their in-service conformity checks.

(21) The methodologies prescribed in order to ensure that only trips made under normal conditions be considered valid RDE tests led to too many invalid tests and should therefore be reviewed and simplified.

(22) A review of the methodologies for the evaluation of the pollutant emissions of a valid trip showed that the results of the two methods currently allowed are not consistent. A new simple and transparent methodology should therefore be laid down. The evaluation factors used in the new methodology should be kept under constant assessment by the Commission in order to reflect the actual state of the technology.

(23) The use of plug-in hybrids, which are used partly in electric mode and partly with the internal combustion engine, should be duly taken into account for the purposes of RDE testing and therefore the calculated RDE emissions should reflect that advantage.

(24) A new evaporative emissions test procedure has been developed at the level of the United Nations Economic Commission for Europe (UN/ECE) which takes into account the technological progress in the control of evaporative emissions from petrol (gasoline) vehicles, adapts that procedure to the WLTP test procedure and introduces new provisions for sealed tanks. It is therefore appropriate to update the current Union rules on evaporative emissions tests to reflect the changes at the level of the UN/ECE.

(25) Also under the auspices of the UN/ECE, the WLTP test procedure has been further improved and complemented with a series of new elements, including alternative ways to measure the road load parameters of a vehicle, more clear provisions for bi-fuel vehicles, improvements of the CO_2 interpolation method, updates related to dual-axis dynamometer requirements and tyre rolling resistances. Those new developments should now be incorporated into Union legislation.

(26) The practical experience with the application of the WLTP since its mandatory introduction for new vehicle types in the Union on 1 September 2017 has shown that this procedure should be further adapted to the Union type-approval system, in particular as regards the information to be included in the relevant documentation.

(27) The changes in the type-approval documentation resulting from the amendments in this Regulation need to be reflected also in the certificate of conformity and the whole vehicle type-approval documentation in Directive 2007/46/EC.

(28) It is therefore appropriate to amend Regulation (EU) 2017/1151, Regulation (EC) No 692/2008 and Directive 2007/46/EC accordingly.

(29) The measures provided for in this Regulation are in accordance with the opinion of the Technical Committee — Motor Vehicles,

HAS ADOPTED THIS REGULATION:

Article 1

Amendments to Regulation (EU) 2017/1151

Regulation (EU) 2017/1151 is amended as follows:

(1) Article 2 is amended as follows:

(a) point 1(b) is replaced by the following:

(b) fall in a single "CO_2 interpolation range" within the meaning of point 2.3.2 of Sub-Annex 6 to Annex XXI;;

(b) point 6 is replaced by the following:

(6) "periodically regenerating system" means an exhaust emissions control device (e.g. catalytic converter, particulate trap) that requires a periodic regeneration process;;

(c) points 11 and 12 are replaced by the following:

(11) "bi-fuel vehicle" means a vehicle with two separate fuel storage systems that is designed to run primarily on only one fuel at a time;

(12) "bi-fuel gas vehicle" means a bi-fuel vehicle where the two fuels are petrol (petrol mode) and either LPG, NG/biomethane, or hydrogen;;

(d) the following point 33 is inserted:

(33) "pure ICE vehicle" means a vehicle where all of the propulsion energy converters are internal combustion engines;;

(e) point 38 is replaced by the following:

(38) "rated engine power" (P_{rated}) means the maximum net power of the engine or motor in kW measured in accordance with the requirements of Annex XX;;

(f) points 45 to 48 are replaced by the following:

(45) "Fuel tank system" means the devices which allow storing the fuel, comprising the fuel tank, the fuel filler, the filler cap and the fuel pump when it is fitted in or on the fuel tank;

(46) "permeability factor" (PF) means the factor determined on the basis of hydrocarbon losses over a period of time and used to determine the final evaporative emissions;

(47) "monolayer non-metal tank" means a fuel tank constructed with a single layer of non-metal material including fluorinated/sulfonated materials;