

COUNCIL OF THE EUROPEAN UNION

Brussels, 10 November 2008 (11.11) (OR. fr)

Interinstitutional File: 2007/0295 (COD)

15367/1/08 REV 1

ENT 271 ENV 783 CODEC 1499

"I" ITEM NOTE

from: Council Secretariat

to: Permanent Representatives Committee (Part 1)

No. prev. doc.: 11936/08 ENT 181 ENV 463 CODEC 982

No. Cion prop.: 5127/08 ENT 3 ENV 9 CODEC 14

Subject: Proposal for a Regulation of the European Parliament and of the Council on type

approval of motor vehicles and engines with respect to emissions from heavy duty vehicles (Euro VI) and on access to vehicle repair and maintenance information

 Analysis of the Presidency's overall compromise with a view to agreement with the European Parliament at first reading

- 1. The Commission submitted its proposal on 21 December 2007¹.
- 2. <u>The Working Party on the Environment</u> met on 14 and 25 January, 7 February, 23 April and 23 July 2008.
- 3. <u>The Transport Council</u> was briefed on the progress of the proceedings on 7 April 2008 and the Environment Council was briefed on 5 June 2008.

¹ 5127/08 ENT 3 ENV 9 CODEC 14.

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- 4. <u>The European Parliament ENVI Committee</u> voted on 15 July 2008 on the basis of a report by Mr Groote and a series of amendments drafted by the TRAN and IMCO Committees.
- 5. The Permanent Representatives Committee defined the Presidency's mandate for the negotiations at the forthcoming informal trialogue on 25 July 2008. The Permanent Representatives Committee then took note of the progress of the negotiations on 17 September and was given an oral briefing on 5 November 2008 on the agreement reached in the trialogue.
- 6. The text of the compromise is set out <u>in annex</u> hereto.
- 7. <u>The European Parliament</u> intends to put this item on the agenda for its November part-session or its first December part-session.

<u>The Permanent Representatives Committee</u> is now invited to approve the overall compromise as set out <u>in annex</u> hereto with a view to agreement with the European Parliament at first reading.

15367/1/08 REV 1 art/STCS/ck DGC I EN

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on type-approval of motor vehicles and engines with respect to emissions from heavy duty vehicles (Euro VI) and on access to vehicle repair and maintenance information

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 95 thereof,

Having regard to the proposal from the Commission¹,

Having regard to the opinion of the European Economic and Social Committee²,

Acting in accordance with the procedure laid down in Article 251 of the Treaty³,

Whereas:

- (1) The internal market comprises an area without internal frontiers in which the free movement of goods, persons, services and capital must be ensured. To that end a comprehensive Community type-approval system for motor vehicles is in place. The technical requirements for the type-approval of motor vehicles with regard to emissions should therefore be harmonised to avoid requirements that differ from one Member State to another and to ensure a high level of environmental protection.
- (2) This Regulation is a new separate regulation in the context of the Community type-approval procedure under Directive 2007/46/EC of the European Parliament and of the Council 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)⁴. Therefore, Annexes IV, VI and XI to that Directive should be amended accordingly.

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OJ C , , p. .

OJ C, , p. .

³ OJ C, , p. .

⁴ OJ L 263, 9.10.2007, p. 1.

- (3) Following the request of the European Parliament, a new regulatory approach has been introduced in the EC vehicle legislation. This Regulation should therefore lay down only fundamental provisions on vehicle emissions, whereas the technical specifications should be laid down by implementing measures adopted following comitology procedures.
- **(4)** The Sixth Community Environment Action Programme adopted by Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 establishes the need to reduce pollution to levels which minimise harmful effects on human health, paying particular attention to sensitive populations and the environment as a whole. Community legislation has established appropriate standards for ambient air quality for the protection of human health and sensitive individuals in particular, as well as for national emissions ceilings. The Clean Air For Europe (CAFE) programme has led to the adoption of a thematic strategy on air pollution¹. One of the conclusions of that thematic strategy is that further reductions in emissions from the transport sector (air, maritime and land transport), from households and from the energy, agricultural and industrial sectors are needed to achieve EU air quality objectives. In this context, the task of reducing vehicle emissions should be approached as part of an overall strategy. The Euro VI standards are one of the measures designed to reduce the actual in-use emissions of air pollutants such as particulate pollutants (PM) as well as ozone precursors such as nitrogen oxides and hydrocarbons.
- (5) Achieving EU air quality objectives requires a continuing effort to reduce vehicle emissions. For that reason, industry should be provided with clear information on future emission limit values and should be allowed an appropriate period of time in which to attain them and pursue the requisite technical developments.
- (6) In particular, reduction in nitrogen oxide emissions from heavy duty vehicles is necessary to improve air quality and comply with limit values for pollution and national emissions ceilings. Setting limit values for nitrogen oxide emissions at an early stage should provide long-term, Europe-wide planning security for vehicle manufacturers.
- (7) In setting emissions standards it is important to take into account the implications for competitiveness of markets and manufacturers, the direct and indirect costs imposed on business and the benefits that accrue in terms of stimulating innovation, improving air quality, reducing health costs and increasing life expectancy.
- (8) Unrestricted access to vehicle repair information, via a standardised format which can be used to retrieve the technical information, and effective competition on the market for vehicle repair and maintenance information services are necessary to improve the functioning of the internal market, particularly as regards the free

¹ COM(2005)0446, 21.9.2005.

movement of goods, freedom of establishment and freedom to provide services. A great proportion of such information is related to on-board diagnostic systems and their interaction with other vehicle systems. It is [] necessary to lay down technical specifications to be followed by the manufacturers in their websites, along with targeted measures to ensure reasonable access for small and medium-sized enterprises (SMEs).

- (8a) Not later than ...*, the Commission should review the operation of the system of unrestricted access to vehicle repair and maintenance information with a view to determining whether it would be appropriate to consolidate all provisions governing access to vehicle repair and maintenance information within a revised framework legislation on type approval. If the provisions governing access to such information are consolidated in this way, the corresponding provisions of this Regulation should be repealed, so long as existing rights of access to repair and maintenance information are preserved.
- (8b) The Commission should encourage the development of an international standard format for unrestricted and standardised access to vehicle repair and maintenance information, for example through the work of CEN.
- (8c) It is indispensable to elaborate a common European standard for the format of on-board diagnostic information and vehicle repair and maintenance information.

 Until such time as that standard is adopted, on-board diagnostic information and vehicle repair and maintenance information for heavy duty vehicles should be presented in a readily accessible manner and in a format guaranteeing non-discriminatory access. The information should be made available on the websites of manufacturers, or, if this is not feasible due to the nature of the information, in another appropriate format.

^{*} Four years from the date of entry into force of this Regulation.

- (9) The Commission should keep under review emissions which are as yet unregulated and which arise as a consequence of the wider use of new fuel formulations, engine technologies and emission control systems and, where necessary, submit a proposal to the European Parliament and to the Council with a view to regulating such emissions.
- (10) It is appropriate to encourage the introduction of alternative fuel vehicles, which can have low nitrogen oxides and particulate emissions. Thus, limit values for hydrocarbons, non-methane hydrocarbons and methane should be introduced.
- In order to ensure that emissions of ultra fine particulate pollutants (PM 0,1 μm and below) are controlled, power should be given to the Commission to adopt a number based approach to emissions of particulate pollutants in addition to the mass based approach which is currently used. The number based approach to emissions of particles should draw on the results of the UN/ECE's Particulate Measurement Programme (PMP) and be consistent with the existing ambitious objectives for the environment.
- (11a) In order to achieve these environmental objectives it is appropriate to indicate that the particle number limits are likely to reflect the highest levels of performance currently obtained with particle filters according to the best available technology.
- (12) The Commission should adopt world-wide harmonised driving cycles in the test procedure that provides the basis of EC type-approval emissions regulations. The application of portable emissions measurement systems for verifying the actual in-use emissions and the introduction of procedures to control off cycle emissions (OCE) should also be considered.
- (12a) Retrofitting of heavy duty vehicles with diesel particle filters could result in higher NO2 emissions. As part of the thematic strategy on air pollution, the Commission should therefore draft a legislative proposal to harmonise national legislation on retrofitting and ensure that it incorporates environmental conditions.
- On board diagnostic (OBD) systems are important to control the emissions during the use of a vehicle. Due to the importance of controlling real world emissions, the Commission should keep under review the requirements for such systems and the tolerance thresholds for monitoring faults.
- (14) In order to monitor the contribution of this sector, **as a whole**, to the global emissions of greenhouse gases (GHG) the Commission should introduce measuring of fuel consumption and carbon dioxide emissions of heavy duty vehicles.

- In order to promote the market of clean and energy efficient vehicles the Commission should study the feasibility and the development of a definition and a methodology of energy consumption and CO₂ emissions for whole vehicles and not only for engines, without prejudice to the use of virtual and actual testing. An eventual definition and the methodology should also cover alternative driveline concepts (e.g. hybrid vehicles) and effects of improvements on vehicles such as aerodynamics, weight, loading capacity and rolling resistance. If a suitable method of presentation and comparison can be identified, the derived fuel consumption and CO₂ emissions should be made publicly available for separate vehicle types.
- In order to better control actual in-use emissions including OCE and to facilitate the in-service conformity process, a testing methodology and performance requirements based on the use of portable emission measuring systems (PEMS) should be adopted within an appropriate timeframe.
- (16) With a view to meeting the air quality objectives, the Commission should introduce harmonised provisions to ensure that off-cycle emissions from heavy duty engines and vehicles are appropriately controlled over a broad range of engine and ambient operating conditions.
- (17) Correct functioning of the after-treatment system, and more specifically in the case of NOx, is the basic requirement to fulfil the established standards for pollutant emissions. In this context, measures to guarantee the proper operation of systems relying in the use of a reagent should be introduced.
- (18) Member States are able, by means of financial incentives, to accelerate the placing on the market of vehicles which satisfy the requirements adopted at Community level. This Regulation should not affect the right of the Member States to include emissions in the basis for calculating taxes levied on vehicles.
- (18a) Member States should base themselves on the Euro VI standards to draw up measures to ensure retrofitting of existing heavy duty vehicles.
- (19) The Member States should lay down rules on penalties applicable to infringements of the provisions of this Regulation and ensure that they are implemented. Those penalties should be effective, proportionate and dissuasive.
- (20) The requirements of engine power of motor vehicles contained in Directive 80/1269/EC should be introduced in this Regulation and in Regulation (EC) No 715/2007. Therefore, Regulation (EC) No 715/2007 should be amended accordingly and Directive 80/1269/EC should be repealed.

- (21) Article 14(6) of Regulation No 715/2007 should be deleted as this Regulation repeals the Directive referred to. Therefore, Regulation (EC) No 715/2007 should be amended accordingly.
- In order to simplify community legislation, it is appropriate to replace the existing Directives by a Regulation. The use of a regulation should ensure that the detailed technical provisions are directly applicable to manufacturers, approval authorities and technical services and that they can be updated in a fast and efficient way. The existing heavy duty emissions legislation, Directives 2005/55/EC 2005/78/EC and 2006/51/EC, should be repealed.
- (23) The measures necessary for the implementation of this Regulation should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission¹.
- In particular, power should be conferred on the Commission to introduce particle number based limit values in Annex I, to specify, **if appropriate**, the value of the admissible level of NO₂ component in the NOx limit value, to establish specific procedures, tests and requirements for type-approval, as well as a measurement procedure for particle number, and to adopt measures concerning off cycle emissions, **the use of portable emissions measurement systems**, access to vehicle repair and maintenance information and test cycles used to measure emissions. Since those measures are of general scope and are designed to supplement this Regulation by the addition of new non-essential elements, they should be adopted in accordance with the regulatory procedure with scrutiny provided for in Article 5a of Decision 1999/468/EC.
- The objectives of this Regulation, namely the realisation of the internal market through the introduction of common technical requirements concerning emissions from motor vehicles and guaranteed access to vehicle repair and maintenance information for independent operators on the same basis as for authorised dealers and repairers, cannot be sufficiently achieved by the Member States and can therefore be better achieved at a Community level, the Community may adopt measures, in accordance with the principle of subsidiarity, as set out in Article 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve those objectives,

HAVE ADOPTED THIS REGULATION:

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OJ L184, 17.7.1999, p. 23. Decision as amended by Decision 2006/512/EC (OJ L200, 22.7.2006, p. 11).

Subject matter

This Regulation establishes common technical requirements for the type-approval of motor vehicles, engines and replacement parts with regard to their emissions.

This Regulation also lays down rules for in-service conformity of vehicles and engines, durability of pollution control devices, on-board diagnostic (OBD) systems, measurement of fuel consumption and carbon dioxide (CO₂) emissions and accessibility of vehicle OBD and vehicle repair and maintenance information

Article 2

Scope

This Regulation shall apply to **motor** vehicles of categories M_1 , M_2 , N_1 and N_2 as defined in Annex II of Directive 2007/46/EC with a reference mass exceeding 2 610 kg and **to** all motor vehicles of categories M_3 and N_3 , as defined in that Annex.

This Regulation shall apply without prejudice to Article 2(2) of Regulation (EC) No 715/2007.

At the request of the manufacturer, the type approval of a completed vehicle given under this Regulation shall be extended to its incomplete vehicle with a reference mass below 2 610 kg. Type approvals shall be extended if the manufacturer can demonstrate that all bodywork combinations expected to be built onto the incomplete vehicle increase the reference mass of the vehicle to above 2 610 kg.

At the request of the manufacturer, the type approval of a vehicle granted under this regulation shall be extended to its variants and versions with a reference mass above 2 380 kg provided that it also meets the requirements relating to the measurement of greenhouse gas emissions and fuel consumption established in Regulation 715/2007/EC and its implementing measures.

Definitions

For the purposes of this Regulation, the following definitions shall apply:

- (1) "engine" means the motive propulsion source of a vehicle for which type-approval as a separate technical unit, as defined in point (25) of Article 3 of Directive 2007/46/EC, may be granted;
- "gaseous pollutants" means the exhaust gas emissions of carbon monoxide, oxides of nitrogen, expressed in nitrogen dioxide (NO₂) equivalent, and hydrocarbons;
- (3) "particulate pollutants" means components of the exhaust gas which are removed from the diluted exhaust gas at a maximum temperature of 325 K (52°C) by means of the filters described in the test procedure for verifying average tailpipe emissions;
- (4) "tailpipe emissions" means the emission of gaseous and particulate pollutants;
- (5) "crankcase" means the spaces in, or external to, an engine which are connected to the oil sump by internal or external ducts through which gases and vapours can be emitted;
- (6) "pollution control device" means those components of a vehicle that control and/or limit tailpipe emissions;
- (7) "on-board diagnostic" or "OBD system" means a system on board a vehicle or engine [] which has the capability of detecting malfunctions, and, if applicable, of indicating their occurrence by means of an alert system, of identifying the likely area of malfunction by means of [] information stored in computer memory, and of communicating that information off-board. The Commission may adapt this definition to reflect technical progress in OBD systems in accordance with the procedure referred to in Article 39(9) of Directive 2007/46/EC;
- (8) "defeat strategy" means an emission control strategy that reduces the effectiveness of the emission controls under ambient or engine operating conditions encountered either during normal vehicle operation or outside the type approval test procedures;
- (9) "original pollution control device" means a pollution control device or an assembly of such devices covered by the type-approval granted for the vehicle concerned;
- (10) "replacement pollution control device" means a pollution control device or an assembly of such devices intended to replace an original pollution control device and which can be approved as a separate technical unit as defined in Article 3 of Directive 2007/46/EC;

- "vehicle repair and maintenance information" means all information required for diagnosis, servicing, inspection, periodic monitoring, repair, re-programming or re-initialising **or the remote diagnostic support** of the vehicle and which the manufacturers provide for their authorised dealers and repairers, including all subsequent amendments and supplements to such information. This information includes all information required for fitting parts or equipment on to vehicles.;
- "manufacturer" means the person or body who is responsible to the approval authority for all aspects of the type-approval or authorisation process and for ensuring conformity of production. It is not essential that the person or body be directly involved in all stages of the construction of the vehicle, system, component or separate technical unit which is the subject of the approval process;
- "independent operator" means undertakings other than authorised dealers and repairers which are directly or indirectly involved in the repair and maintenance of motor vehicles, in particular repairers, manufacturers or distributors of repair equipment, tools or spare parts, publishers of technical information, automobile clubs, roadside assistance operators, operators offering inspection and testing services, operators offering training for installers, manufacturers and repairers of equipment for alternative fuel vehicles;
- (13) "alternative fuel vehicle" means a vehicle designed to be capable of running on at least one type of fuel that is either gaseous at atmospheric temperature and pressure, or substantially non-mineral oil derived;
- "reference mass" means the mass of the vehicle in running order less the uniform mass of the driver of 75 kg and increased by a uniform mass of 100 kg.
- "tampering" means the inactivation or adjusting or modifying of the vehicle emissions control or propulsion system, including any software or other logical control elements of those systems, in any way that has the effect, whether intended or not, of worsening the emissions performance of the vehicle.

Obligations of the manufacturers

- 1. Manufacturers shall demonstrate that all new vehicles sold, registered or put into service within the Community, all new engines sold or put into service within the Community and all new replacement pollution control devices requiring type-approval pursuant to Article 8, which are sold or put into service within the Community, are type approved in accordance with this Regulation.
- 2. Manufacturers shall ensure that type-approval procedures for verifying conformity of production, durability of pollution control devices and in-service conformity are followed.

The technical measures taken by the manufacturer shall be such as to ensure that the tailpipe emissions are effectively limited, pursuant to this Regulation, throughout the normal life of the vehicles under normal conditions of use.

For that purpose, the mileage and period of time by reference to which the tests for durability of pollution control devices undertaken for type-approval and testing of conformity of in-service vehicles or engines are to be carried out shall be the following:

- (a) $160\ 000$ km or five years, whichever is the sooner, in the case of engines fitted to vehicles of category M_1 , N_1 and M_2 ;
- (b) 300 000 km or six years, whichever is the sooner, in the case of engines fitted to vehicles of category N₂, N₃ with a maximum technically permissible mass not exceeding 16 tonnes and M₃ Class I, Class II and Class A, and Class B with a maximum technically permissible mass not exceeding 7,5 tonnes;
- (c) 700 000 km or seven years, whichever is the sooner, in the case of engines fitted to vehicles of category N₃ with a maximum technically permissible mass exceeding 16 tonnes and M₃, Class III and Class B with a maximum technically permissible mass exceeding 7,5 tonnes.
- 3. The Commission shall, in accordance with the procedure referred to in Article 39(9) of the Directive 2007/46/EC, establish specific procedures and requirements for the implementation of paragraphs 1 and 2 of this Article.

Requirements and tests

- 1. Manufacturers shall ensure compliance with the emission limits set out in Annex I.
- 2. Manufacturers shall equip engines and vehicles so that the components likely to affect emissions are designed, constructed and assembled so as to enable the engine or vehicle, in normal use, to comply with this Regulation.
- 3. The use of defeat strategies that reduce the effectiveness of emission control equipment shall be prohibited.
- 4. The Commission shall, in accordance with the procedure referred to in Article 39(9) of Directive 2007/46/EC, adopt measures for the implementation of this Article [] **including** the following:
 - (a) tailpipe emissions, including test cycles, the use of portable emissions measurement systems for verifying the actual in-use emissions, verifying and limiting off cycle emissions, establishment of limits for particle number while retaining the existing ambitious environmental requirements and emissions at idling speed [];
 - (b) crankcase emissions;
 - (c) OBD systems and in-service performance of pollution control devices;
 - (d) durability of pollution control devices, replacement pollution control devices, conformity of in-service engines and vehicles, conformity of production and roadworthiness:
 - (e) carbon dioxide emissions and fuel consumption;
 - (f) granting extension of type-approvals;
 - (g) test equipment;
 - (h) reference fuels, such as petrol, diesel, gaseous fuels and biofuels, such as bioethanol, biodiesel and biogas;
 - (i) measurement of engine power;
 - (i) correct functioning and regeneration of pollution control devices;

(k) specific provisions to ensure the correct operation of NOx control measures; such provisions [] shall ensure that vehicles [] cannot be operated if the NO_x control measures are inoperative as, for example, due to lack of any required reagent, incorrect EGR flow or deactivation of EGR [].

[]

Article 6

Access to information

1. Manufacturers shall provide unrestricted and standardised access to on-board diagnostic (OBD) information, diagnostic and other equipment, tools including any relevant software and vehicle repair and maintenance information to independent operators.

Manufacturers shall provide a standardised, secure, remote facility to enable independent repairers to complete operations which involve access to the vehicle security system

In the case of multi-stage type approval, the manufacturer responsible for the respective type approval shall also be responsible for communicating repair information relating to the particular stage to both the final manufacturer and independent operators. The final manufacturer shall be responsible for communicating information about the whole vehicle to independent operators.

Articles 6 and 7 of Regulation (EC) No 715/2007 shall apply mutatis mutandis

Until the adoption of the relevant standard, for example through the work of CEN, the on-board diagnostic information and vehicle repair and maintenance information shall be presented in a easily accessible, non-discriminatory manner.

The information shall be made available on the websites of manufacturers, or, if this is not feasible due to the nature of the information, in another appropriate format.

2. The Commission shall, in accordance with the procedure referred to in Article 39(9) of Directive 2007/46/EC, establish and update, for the implementation of paragraph 1 of this Article, the **appropriate** technical specifications relating to the way in which OBD information and vehicle repair and maintenance information shall be provided. The Commission shall take into account current information technology, foreseeable vehicle technology developments, existing ISO standards and the possibility of a worldwide ISO standard.

The Commission may, in accordance with the procedure referred to in Article 39(9) of Directive 2007/46/EC, adopt other measures necessary for the implementation of paragraph 1 of this Article.

Article 7

Obligations concerning systems using a consumable reagent

- 1. Manufacturers, repairers and operators of the vehicles shall not tamper with systems which use a consumable reagent.
- 2. Operators of the vehicles shall ensure that the vehicle is not being driven without consumable reagent.

Article 8

Time table for application of type-approval of vehicles and engines

- 1. With effect from the date set out in the first sentence of the second paragraph of Article 16, national authorities shall refuse, on grounds relating to emissions, to grant EC type-approval or national type-approval in respect of new types of engine or vehicle which do not comply with this Regulation **and its implementing measures**.
 - Type-approval technical certificates corresponding to emission stages previous to Euro VI may be granted to vehicles and engines intended for export to third countries, provided such certificates clearly state that the vehicles and engines in question cannot be placed on the Community market.
- 2. With effect from **31 December 2013**, national authorities shall, in the case of new vehicles which do not comply with this Regulation **and its implementing measures**, consider certificates of conformity to be no longer valid for the purposes of Article 26 of Directive 2007/46/EC and shall, on grounds relating to emissions, prohibit the registration, the sale and entry into service of such vehicles.
 - With effect from the same date and except in the case of replacement engines for in-service vehicles, national authorities shall prohibit the sale or use of new engines which do not comply with this Regulation and its implementing measures.

3. Without prejudice to paragraphs 1 and 2 of this Article, and subject to entry into force of the implementing measures referred to in Article 4(3), in the first subparagraph of Article 5(4) and in the first subparagraph of Article 6(2), if a manufacturer so requests, national authorities may not, on grounds relating to emissions of vehicles, refuse to grant EC type-approval or national type-approval for a new type of vehicle or engine, or prohibit the registration, sale or entry into service of a new vehicle and the sale or use of new engines, where the vehicle or engines concerned comply with this Regulation and its implementing measures.

Obligations of Member States concerning type-approval of replacement parts

[] The sale or installation on a vehicle of new replacement pollution control devices intended to be fitted on vehicles approved under this Regulation **shall be prohibited** if they are not of a type in respect of which a type-approval has been granted in compliance with this Regulation.

Article 10

Financial incentives

- 1. Subject to the entry into force of the implementing measures to this Regulation, Member States may provide for financial incentives that apply to motor vehicles in series production, which comply with this Regulation **and its implementing measures**.
 - Those incentives shall apply to all new vehicles put on the market of the Member State concerned, which comply with this Regulation and its implementing measures. However, they shall cease to apply on 31 December 2013 at the latest.
- 2. Subject to the entry into force of the implementing measures to this Regulation, Member States may grant financial incentives for the retrofitting to the emission limit values set out in Annex I of in-use vehicles and for scrapping vehicles which do not comply with this Regulation and its implementing measures.
- 3. For each type of motor vehicle, the financial incentives referred to in paragraphs 1 and 2 shall not exceed the additional cost of the technical devices introduced to ensure compliance with the emission limits specified in Annex I, including the cost of installation on the vehicle.
- 4. The Commission shall be informed of plans to institute or change the financial incentives referred to in paragraphs 1 and 2.

Article 11

Penalties

1. Member States shall lay down the provisions on penalties applicable for infringement of the provisions of this Regulation and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive. Member States shall notify those provisions to the Commission by [DATE 18 months after entry into force of this Regulation] at the latest and shall notify it without delay of any subsequent amendment affecting them.

- 2. The types of infringements by manufacturers which are subject to a penalty shall include:
 - (a) making false declarations during the approval procedures or procedures leading to a recall;
 - (b) falsifying test results for type-approval or in-service conformity;
 - (c) withholding data or technical specifications which could lead to recall or withdrawal of type-approval;
 - (d) use of defeat strategies;
 - (e) refusal to provide access to information.

The types of infringements by manufacturers, repairers and operators which are subject to a penalty shall include tampering with systems for control of emissions of Oxides of Nitrogen (NO_x). This shall include, for example, tampering with systems which use a consumable reagent.

The types of infringements by operators which are subject to a penalty shall include driving a vehicle without consumable reagent.

Article 12

Redefinition of Specifications

- 1. After the completion of the **relevant parts of the** UN/ECE Particulate Measurement Programme, conducted under the auspices of the World Forum for Harmonization of Vehicle Regulations, the Commission shall, without lowering the level of environment protection within the Community and **in accordance with Article 39(9) of Directive 2007/46/EC**:
 - (a) introduce as an additional control upon emissions of particulate matter particle number based limit values set at a level appropriate to the technologies actually being used at that time to meet the particulate mass limit [];
 - (b) adopt a measurement procedure for particle number.

The Commission shall also, without lowering the level of environment protection within the Community, specify a limit value for Nitrogen Dioxide (NO_2) in addition to that for total Oxides of Nitrogen (NO_x), in accordance with Article 39(9) of Directive 2007/46/EC, if appropriate. The limit for NO_2 shall be set at a level reflecting the performance of then existing technologies.

- 2. The Commission shall establish correlation factors between the European transient cycle (ETC) and the European steady state cycle (ESC) as described in Directive 2005/55/EC, and the world-wide harmonised transient driving cycle (WHTC) and the world-wide harmonised steady state driving cycle (WHSC) and shall adapt the limit values to that effect, in accordance with Article 39(9) of Directive 2007/46/EC.
- 3. The Commission shall keep under review the procedures, tests and requirements referred to in Article 5(4) as well as the test cycles used to measure emissions.

If the review finds that those procedures, tests, requirements and test cycles are no longer adequate or no longer reflect actual world emissions, they shall be adapted in accordance with Article 39(9) of Directive 2007/46/EC so as to adequately reflect the emissions generated by real driving on the road.

4. The Commission shall keep under review the pollutants listed in point 2 of Article 3. If the Commission concludes that it is appropriate to regulate the emissions of additional pollutants, it shall **submit to the European Parliament and the Council a proposal for amending** [] this Regulation [].

Article 13

Amendments to Regulation (EC) No 715/2007

Regulation (EC) No 715/2007 is amended as follows:

- 1. Article 5(3) is amended as follows:
 - (i) after point (h), the word "and" is deleted;
 - (ii) the following point (j) is added:
 - "(j) measurement of engine power."
- 2. Article 14(6) is deleted.

Article 14

Amendments to Directive 2007/46/EC

Annexes IV, VI and **XI** to Directive 2007/46/EC are amended in accordance with Annex II to this Regulation

Article 15

Repeal

- 1. Council Directive 80/1269/EEC, Commission Directives 88/195/EEC, 97/21/EC, 1999/99/EC and 2005/78/EC, and Directive 2005/55/EC are repealed with effect from **31 December 2013**.
- 2. References made to the repealed Directives shall be construed as references to this Regulation.

Entry into force

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

It shall apply from **31 December 2012**. However, Articles 8(3) and 10 shall apply from the date of entry into force and points 1(a)(i), 1(b)(i), 2(a), 3(a)(i), 3(b)(i), 3(c)(i), 3(d)(i) and **3(e)(i)** of Annex II shall apply from **31 December 2013**.

The Commission shall adopt the implementing measures referred to in Article 4(3), Article 5(4), Article 6(2) and Article 12(1) (a) and (b) by no later than 1 April 2010.

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

Done at Brussels,

For the European Parliament The President For the Council The President

ANNEX I

Euro VI Emission Limits

	Limit values									
	CO	THC	NMHC	CH ₄	$NO_{X}(3)$	NH ₃	PM mass	PM (1)		
	(mg/kWh)	(mg/kWh)	(mg/kWh)	(mg/kWh)	(mg/kWh)	(ppm)	(mg/kWh)	number		
								(#/kWh)		
ESC						10				
(CI)	1 500	130			400		10			
ETC						10				
(CI)	4 000	160			400		10			
ETC						10				
(PI)	4 000		160	500	400		10			
WHSC										
(2)										
WHTC										
(2)										

PI = Positive Ignition,

CI = Compression Ignition

- (1) A number standard is to be defined at a later stage and no later than 1 April 2010.
- (2) The limit values relating to WHSC and WHTC, replacing the limit values relating to ESC and ETC, will be introduced, at a later stage, once correlation factors with respect to the current cycles (ESC and ETC) have been established, no later than 1 April 2010.
- (3) The admissible level of NO₂ component in the NOx limit value may be defined at a later stage.

Amendments to Directive 2007/46/EC

Directive 2007/46/EC is amended as follows:

- 1. Part I of Annex IV is amended as follows:
 - (a) the table is amended as follows:
 - (i) points 40 and 41 are [] deleted;
 - (ii) the following point 41a is inserted:

	Regulatory	Official Journal	cial Journal Applicability									
Subject	act reference	reference	M_1	M_2	M ₃	N_1	N ₂	N ₃	O_1	O_2	O ₃	O_4
41a Emissions	[EC) No	[L,, p	X^{12}	X^{12}	X	X^{12}	X^{12}	X				
(Euro VI)	/	reference to this										
heavy duty	number of	Regulation to be										
vehicles/acc	this	inserted]										
ess to	Regulation											
information	to be											
	inserted]											

- (iii) the following note is added:
 - For vehicles with a reference mass exceeding 2 610 kg which are not type-approved (at the manufacturer's request and provided their reference mass does not exceed 2 840 kg) under Regulation EC (No) 715/2007"
- (b) in the Appendix, the table is amended as follows:
 - (i) points 40 and 41 are []deleted;
 - (ii) the following point 41a is inserted:

	Subject	Regulatory act reference	Official Journal reference	M_1
41a	Emissions (Euro VI) heavy duty vehicles, with the exception of the whole set of requirements relating to On Board Diagnostics	[EC) No/ number of this Regulation to be inserted]	[L,, p reference to this Regulation to be inserted]	A
	(OBDs) and access to information /Access to information			

- 2. In the Appendix to Annex VI, the table is amended as follows:
 - (a) points 40 and 41 are [] deleted;
 - (b) the following point 41a is inserted:

Subject	Regulatory act reference	As amended by	Applicable to versions		
41a Emissions (Euro	[EC) No/				
VI) heavy duty	number of this				
vehicles/access to	Regulation to be				
information	inserted]				

- 3. Annex XI is amended as follows:
 - (a) In Appendix 1, the table is amended as follows:
 - (i) points 40 and 41 are [] deleted
 - (ii) the following point 41a is inserted:

Item	Subject	,		$M_1 > 2500$	M_2	M_3
		reference	(¹) kg	(¹) kg		
41a	Emissions (Euro VI)	[EC) No/	G+H	G+H	G+H	G+H
	heavy duty	number of this				
	vehicles/access to	Regulation to				
	information	be inserted]				

- (b) In Appendix 2, the table is amended ad follows:
 - (i) points 40 and 41 are [] deleted;
 - (ii) the following point 41a is inserted in the table:

Item	Subject	Regulatory act reference	M_1	M_2	M_3	N_1	N ₂	N ₃	O_1	O_2	O ₃	O_4
41a	Emissions (Euro VI) heavy duty vehicles/access to information	[EC) No/ number of this Regulation to be inserted]	X	X	X	X	X	X				

- (c) In Appendix 3, the table is amended as follows:
 - (i) points 40 and 41 are deleted;
 - (ii) the following point 41a is inserted

Item	Subject	Regulatory act reference	M_1
41a	Emissions (Euro VI)	[EC) No/ number of this	X
	heavy duty	Regulation to be inserted]	
	vehicles/access to		
	information		

- (d) In Appendix 4, the table is amended ad follows:
 - (i) points 40 and 41 are [] deleted;
 - (ii) the following point 41a is inserted:

Item	Subject	Regulatory act reference	M_2	M_3	N_1	N ₂	N ₃	O_1	O_2	O ₃	O ₄
41a	Emissions (Euro VI)	[EC) No/	Н	Н	Н	Н	Н				
	heavy duty	number of this									
	vehicles/access to	Regulation to									
	information	be inserted]									

- (e) In Appendix 5, the table is amended as follows:
 - (i) points 40 and 41 are [] deleted;
 - (ii) the following point 41a is inserted:

Item	Subject	Regulatory act reference	Mobile crane of category N3
41a	Emissions (Euro VI)	[EC) No/ number of	[] V
	heavy duty	this Regulation to be	
	vehicles/access to	inserted]	
	information		