



COMMISSION OF THE EUROPEAN COMMUNITIES

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2005/0282 (COD)

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

**on type approval of motor vehicles with respect to emissions and on access to vehicle
repair information, amending Directive 72/306/EEC and Directive .././EC**

(presented by the Commission)

{SEC(2005) 1745}

EXPLANATORY MEMORANDUM

1) CONTEXT OF THE PROPOSAL

Grounds for and objectives of the proposal

The objective of the proposal is to lay down harmonised rules on the construction of motor vehicles with a view to ensuring the functioning of the internal market while at the same time providing for a high level of environmental protection regarding atmospheric emissions.

The proper functioning of the single market in the European Union requires common standards limiting the emission of atmospheric pollutants from motor vehicles. Action at Community level prevents varying product standards emerging across Member States which results in fragmentation of the internal market and imposition of unnecessary barriers to intra-Community trade.

Member States and their citizens are concerned about the risks to human health and the environment that results from air pollution. Although air quality has improved over the past decade, there are still significant air quality problems throughout the European Union, especially in urban areas and in densely populated regions.

General context

Euro 4 emission limits for cars came into force on 1 January 2005 for new type approvals¹. Several Member States have a history of using tax incentives to accelerate the introduction of cleaner vehicles. In order to avoid disruption of the single market through various Member States introducing fiscal incentives in January 2005 based on differing limit values, the Commission services published a staff working paper² which suggested a limit value for particulate matter. The working paper invited those Member States wishing to introduce fiscal incentives to base their incentives on the 5 mg/km value set out in the working paper.

With no change in the policy of reducing emission levels for motor vehicles, there is a high risk that the functioning of the internal market would be impaired with Member States seeking to take unilateral action. Poor air quality will also remain an issue in the European Union with atmospheric pollution continuing to have a detrimental impact on human health.

Existing provisions in the area of the proposal

The requirements on the construction of motor vehicles are presently governed by Directive 70/220/EEC³ (as amended), on the ‘Approximation of the laws of the Member States relating to measures to be taken against air pollution by emissions from motor vehicles’.

¹ Directive 98/69/EC of the European Parliament and of the Council of 13 October 1998 relating to measures to be taken against air pollution by emissions from motor vehicles and amending Council Directive 70/220/EEC (OJ L 350, 28.12.1998, p. 1).

² SEC(2005) 43, 12.1.2005.

³ OJ L 76, 6.4.1970, p. 1.

Consistency with the other policies and objectives of the Union

The proposal has been developed in the context of the "Clean Air For Europe" (CAFE) programme that provided the technical basis for the preparation of the Thematic Strategy on Air Pollution⁴. CAFE assessed levels of emissions, current and future air quality and the costs and benefits of further measures to improve air quality. On this basis, the Commission has identified measures which are required in order to attain the necessary air quality levels. Euro 5 is one among several such measures that are important to reduce emissions of ozone precursors (such as NO_x and HC) and particulate matter.

Moreover, the proposal is fully in line with the aims of the European Union's Sustainable Development strategy and contributes significantly to the objectives of the Lisbon strategy.

2) CONSULTATION OF INTERESTED PARTIES AND IMPACT ASSESSMENT

Consultation of interested parties

Consultation methods, main sectors targeted and general profile of respondents

In developing the proposal the Commission has consulted stakeholders in a number of ways:

- There was consultation with the Motor Vehicles Emissions Group, an expert stakeholder working group responsible for supporting the regulatory processes of the Commission on emission related issues. A broad range of interested parties are involved in the work of this group: national authorities, vehicle manufacturers, component suppliers, industry associations and non-governmental organisations.
- A questionnaire was sent to stakeholders in February 2004 on scenarios for new Euro 5 emission limit values for passenger cars and light-duty vehicles. The questionnaire sought to gather views as to the required technology and associated costs of meeting various limit value scenarios. The results of the data collection exercise were subject to review by an independent expert panel.
- Presentations were made to key stakeholders in early 2005 on the results of the review carried out by the expert panel. The panel produced a technology map and a cost range of meeting the various emission reduction scenarios.
- The Euro 5 proposal was developed at the same time as the Commission's Thematic Strategy for Air Pollution (CAFE Programme). Stakeholders were actively engaged in the discussion of this programme.
- Key elements of the draft proposal were presented to the CARS 21 High Level and Sherpa group, giving stakeholders an early opportunity to comment on new Euro 5 emission limit values.

⁴ COM(2005) 446, 21.9.2005.

- In July 2005, the Commission held an internet consultation on a preliminary draft proposal for Euro 5. This consultation generated around 50 responses from a range of different stakeholders.

Summary of responses and how they have been taken into account

During the internet consultation, a number of issues were raised by stakeholders⁵. The impact assessment that accompanies this proposal provides a full account of the substantive issues raised and discusses how they have been taken into consideration.

Collection and use of expertise

Scientific/expertise domains concerned

The proposal required analysis of vehicle technologies to be used to reduce emissions and the associated costs of achieving the various scenarios for Euro 5 emission limit values.

Methodology used

In early 2004, the Commission services sent out a questionnaire to stakeholders on new Euro 5 emission limits for light duty vehicles. The questionnaire developed a number of scenarios for new limit values and sought data on the technology that would be required to meet those values and the associated costs. An expert panel of independent consultants was engaged to review responses to the questionnaire. The aim was to assess and validate the stakeholder responses and reach a common position on the technology required and cost for each scenario. This information was used to model the impacts of a number of the emission limit scenarios.

Main organisations/experts consulted

Data were collected from a range of stakeholders in the automotive industry and collated by a group of consultants led by TNO in The Netherlands.

Summary of advice received and used

The panel of consultants summarised the cost data provided by stakeholders. The Commission used the panel's report as an input to the analysis of the various emission limit value scenarios. The preferred limit values have been selected on the basis of their technical feasibility and cost-effectiveness, as explained in the impact assessment accompanying the proposal.

Means used to make the expert advice publicly available

The report of the expert panel is available on the DG Enterprise and Industry web site⁶.

⁵ http://europa.eu.int/comm/enterprise/automotive/pagesbackground/pollutant_emission/stakeholder_consultation/contributions.htm

⁶ http://europa.eu.int/comm/enterprise/automotive/mveg_meetings/meeting97/tno_report.pdf

Impact assessment

Four policy options have been considered:

- (1) *'No policy change' approach*: the emission limit values of Euro 4 (Directive 70/220/EC as amended) remain in force for diesel and petrol vehicles.

With no change in the policy of reducing emission levels for motor vehicles, there is a high risk that the functioning of the internal market would be impaired. It is likely that in the absence of stricter emission standards at European level, Member States would start legislating themselves or would start using other measures, such as bans on certain types of vehicle entering cities or creation of low emission zones.

Poor air quality will remain an issue in the European Union as atmospheric pollution will continue to have a detrimental impact on human health. The CAFE Programme showed that despite the improvements in pollutant emissions, health impacts from air pollution across the EU are still projected to be considerable in 2020.

Therefore, this policy option is not considered to be viable.

- (2) *Regulatory approach*: revising the existing Euro 4 legislation through setting new Euro 5 emission limit values at European Union level.

In comparison with the no policy change scenario, the regulatory option will have the clear benefits of ensuring the proper functioning of the internal market and improving air quality. This will improve public health and, thus, will enable Governments to generate savings.

The indirect impacts of the regulatory option might be positive in terms of the international competitiveness of EU industry, especially in markets with strict environmental regulation in force.

Thus, the option of regulatory approach is pursued in the proposal.

- (3) *Fiscal incentives by Member States*: Member States introduce on a voluntary basis fiscal incentives for vehicles that fulfil stricter emission limit values than Euro 4.

At present only a small number of Member States have a history of introducing fiscal incentives, so uptake of the measure could be limited. The sustainability of such measures can also be questioned on the long term. Therefore, this policy could lead to considerable uncertainty for manufacturers as to the demand for cleaner vehicles.

In addition, different types of incentive regimes in neighbouring countries could result in unpredictable cross border effects, both in terms of vehicle purchasing patterns and air pollution impacts. The continued existence of the single market for vehicles could therefore be put at risk.

Thus, the option does not ensure that the policy objectives are attained and could even have a negative impact on the functioning of the internal market through reducing the certainty as to the demand for specific types of vehicles.

Therefore, this is not the approach to be followed.

- (4) *Non-regulatory approach*: self-regulation through negotiated commitments with the automotive industry to reduce the emissions from new vehicles.

It is not clear that a self commitment provides an adequate guarantee that a specific emission level will be reached or that there will be appropriate sanctions available if the self-commitment were to be breached. In addition, it is not apparent that the use of a voluntary approach would offer any additional benefits to the industry, governments or the general public.

The Euro series of emissions regulations are widely used in many emerging markets. Therefore, developments in the regulatory system for emissions established in the EU have important implications around the world. A move away from a regulatory approach to a voluntary approach would therefore be disruptive to the process of global harmonisation.

The option of non-regulatory approach was therefore not considered further.

The Commission services carried out an impact assessment listed in the Work Programme under the reference number 2005/ENTR/018.

3) LEGAL ELEMENTS OF THE PROPOSAL

Summary of the proposed action

The main aspect of this Regulation is that it requires a further tightening of vehicle emission limits for particulate matter and nitrogen oxides (NO_x).

A large reduction (80%) in the mass of particulate emissions from diesel vehicles will be required. While this lower emission limit does not prescribe a particular technology, it will de facto require the introduction of diesel particulate filters (DPFs).

At present, the emission limit selected can only be met by closed filters, which have the benefit of reducing the ultra fine particles that are considered most harmful to health. To prevent the possibility that in the future open filters are developed that meet the new particulate mass limit but enable a high number of ultra fine particles to pass, it is foreseen to introduce at a later stage a new standard limiting the number of particles that can be emitted. At the moment, it is not appropriate to define a number standard as research is being conducted at the UN/ECE under the Particulate Measurement Programme (PMP). The UN/ECE working party is still examining this issue. Once the results of the PMP programme are available, a number standard will be implemented through comitology.

The PMP programme is also testing a new protocol for measuring particulate emissions. A key benefit of the new approach is that it provides for greater repeatability in measuring emissions in the laboratory. Once the programme is complete, consideration will be given to replacing the current measurement procedure with the new approach. When the new measurement procedure is implemented, the Commission will have to recalibrate the PM mass emission limits set out in this proposal, as the new technique records a lower level of mass than the current method.

For diesel vehicles, only a small reduction (20%) in NO_x is planned. This emission limit has been set so that reductions can be achieved by further internal engine measures. As the proposal will lead to the installation of particulate filters in the exhaust stream, the Commission wished to avoid an obligation for installing an additional NO_x after-treatment system at this stage. As the technology for further NO_x reduction is not yet mature, it is therefore proposed not to reduce NO_x emissions beyond the 200 mg/km limit value.

The proposal includes further reductions in emissions from petrol cars. The Commission proposes a 25% reduction in NO_x with a limit value of 60 mg/km and a 25% reduction in hydrocarbons (HC) with a limit value of 75 mg/km. Many petrol vehicles currently sold in the EU are comfortably beneath this proposed emission limit, others can be made to respect it at relatively low cost.

Emission limits on the mass of particulate emissions from petrol engines are also proposed. These limits apply only to direct injection vehicles operating in lean burn mode, as PM emissions are not an issue for petrol vehicles that operate with purely stoichiometric combustion.

A further change is the proposal that the durability period over which manufacturers must ensure the functioning of pollution control devices has been extended from 80 000 km to 160 000 km. This change will more realistically reflect the actual life of vehicles and ensure that emission control systems continue to function throughout the life of the vehicle.

The proposal includes a requirement that vehicle repair information be made available through websites in the standardised format developed by a technical committee of stakeholders (the so-called 'OASIS standard').

A final aspect is the removal of the exception in previous legislation which enabled heavy passenger vehicles (Class M1, over 2 500 kg) to be type approved as light commercial vehicles. There is no longer seen to be any justification for this exemption.

Legal basis

The legal basis of the proposal is Article 95 of the Treaty.

Subsidiarity principle

The subsidiarity principle applies insofar as the proposal does not fall under the exclusive competence of the Community.

The objectives of the proposal cannot be sufficiently achieved by actions of Member States because of the need to avoid the emergence of barriers to the single market and because of the transboundary implications of air pollution.

Community action will better achieve the objectives of the proposal because it will avoid fragmentation of the internal market which would otherwise arise. By setting uniform standards for the level of pollutant emissions from motor vehicles, the proposal ensures better air quality in the European Union and addresses the problem of transboundary air pollution.

The proposal therefore complies with the subsidiarity principle.

Proportionality principle

The proposal complies with the proportionality principle because it does not go beyond what is necessary in order to achieve the objectives of ensuring the proper functioning of the internal market while at the same time providing for a high level of environmental protection.

The cost-benefit analysis carried out in the framework of the impact assessment of the proposal demonstrates that the selected emission limit values provide benefits for the society as a whole, while at the same time taking into account the competitiveness of the automotive industry.

Choice of instruments

The proposed instrument is a Regulation. Other means would not be adequate for the following reason:

- The use of a Regulation is considered to be appropriate in providing the required assurance for compliance whilst not requiring the transposition into member states legislation.

The proposal uses the "split-level approach" that has been used in other pieces of legislation, e.g. in the case of the Directive for heavy duty vehicle emissions⁷. This approach foresees that the proposal and adoption of legislation will be made according to two different, but parallel, routes:

- first, the fundamental provisions will be laid down by the European Parliament and the Council in a Regulation based on Article 95 of the EC Treaty through the co-decision procedure (the 'co-decision proposal');
- secondly, the technical specifications implementing the fundamental provisions will be laid down in a Regulation adopted by the Commission with the assistance of a regulatory committee (the 'comitology proposal').

4) BUDGETARY IMPLICATION

The proposal has no implications for the Community budget.

5) ADDITIONAL INFORMATION

Simulation, pilot phase and transitory period

There are general transitory periods in the proposal in order to allow sufficient lead times for vehicle manufacturers.

⁷ Directive 2005/55/EC (OJ L 275, 20.10.2005, p. 1); Directive 2005/78/EC (OJ L 313, 29.11.2005, p. 1).

Simplification

The proposal provides for simplification of legislation.

The Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions having the title “updating and simplifying the Community acquis”⁸ identifies, as a priority area for simplification of Community legislation, the type approval system for motor vehicles. The proposal for new emissions legislation repealing Directive 70/220/EEC is specifically listed in the Commission work programme.

In addition this proposal seeks to further simplify Community legislation by integrating into this Regulation and its implementing measures the requirements and test procedures for measuring carbon dioxide emissions and fuel consumption of light duty vehicles set out in Directive 80/1268/EEC⁹ (as amended). As a result this Directive can also be repealed.

A further simplification is introduced through integration of the test requirements for measuring diesel smoke contained in Directive 72/306/EEC¹⁰ into this proposal. This Directive will be able to be repealed in the future when similar requirements are introduced into emissions legislation relating to heavy duty vehicles.

The proposal provides for simplification of administrative procedures for public authorities (EU or national). The proposal is included in the Commission's rolling programme for up-date and simplification of the *acquis communautaire* and its Work and Legislative Programme under the reference 2005/ENTR/018.

Repeal of existing legislation

The adoption of the proposal will lead to the repeal of existing legislation. This is detailed in Article 17 of the proposal.

⁸ COM(2003) 71, 11.2.2003.

⁹ Council Directive 80/1268/EEC of 16 December 1980 on the approximation of the laws of the Member States relating to the fuel consumption of motor vehicles (OJ L 375, 31.12.1980, p. 36).

¹⁰ Council Directive 72/306/EEC of 2 August 1972 on the approximation of the laws of the Member States relating to the measures to be taken against the emission of pollutants from diesel engines for use in vehicles (OJ L 190, 20.8.1972, p. 1).

Review/revision/sunset clause

The Commission intends to review in 2009 the issue of further improvements of emissions, following the mid-term review of the CARS 21 report, with a view to proposing a further significant reduction of limit values (including NO_x) that reflect the development in vehicle emission technology at that point in time and cost-effectiveness considerations. Any proposal will be based on an extended impact assessment and stakeholder consultation.

European Economic Area

The proposed act concerns an EEA matter and should therefore extend to the European Economic Area.

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(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 Commission¹¹,

Having regard to the opinion of the European Economic and Social Committee¹²,

Acting in accordance with the procedure laid down in Article 251 of the Treaty¹³,

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, established by Directive [XXXX/XX/EC] of [date] of the European Parliament and of the Council on the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles¹⁴, 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 one of a number of separate regulatory acts in the context of the Community type approval procedure under Directive [XXXX/XX/EC]. Therefore, this Directive should be amended accordingly.
- (3) At the request of the European Parliament a new regulatory approach has been introduced in EU vehicle legislation. Thus, this Regulation lays down fundamental

¹¹ OJ C , , p. .

¹² OJ C , , p. .

¹³ OJ C , , p. .

¹⁴ OJ L , , p. . [This refers to the Commission's proposal COM(2003) 418, 2003/0153 (COD) as amended by COM(2004) 738 which is pending in the codecision process. References to the Framework Directive will be updated as soon as it is adopted.]

provisions on vehicle emissions, whereas the technical specifications will be laid down by implementing measures adopted under [Article 36] of the Framework Directive.

- (4) In March 2001 the Commission launched the Clean Air For Europe (CAFE) programme, the major elements of which are outlined in a communication¹⁵. This has led to the adoption of a thematic strategy on air pollution¹⁶. One of the conclusions of the thematic strategy is that further reductions in vehicle emissions are needed to achieve European air quality objectives.
- (5) In setting emissions standards it is important to take into account the implications for markets and manufacturers' competitiveness, the direct and indirect costs imposed on business and the benefits that accrue in terms of stimulating innovation, improving air quality and reducing health costs.
- (6) Unrestricted and standardised access to vehicle repair information and effective competition on the market for vehicle repair and information services are necessary to facilitate the free circulation of vehicles on the internal market. A great proportion of such information is related to on-board diagnostic systems and their interaction with other vehicle systems. It is appropriate to lay down technical specifications that manufacturers' websites shall follow.
- (7) The Commission should closely monitor technological developments in emission control and, where appropriate, adapt this Regulation accordingly.
- (8) The Commission should keep under review, and where necessary regulate, emissions which are as yet unregulated and which arise as a consequence of the wider use of new fuel formulations, engine technologies and exhaust emission control systems. This should include a review of the benefits of changing from regulating emissions of total hydrocarbons (THC) to a system based on non-methane hydrocarbons (NMHC) and methane (CH₄).
- (9) In order to ensure that emissions of ultra fine particulate matter (PM) are controlled, the Commission should also give consideration to the adoption of a number based approach to emissions of PM, in addition to the mass based approach which is currently used.
- (10) To provide greater repeatability in measuring the mass of particulate emissions in the laboratory, the Commission should introduce a new testing protocol. Once the relevant research programme is complete, consideration will be given to replacing the current measurement procedure with the new approach. When the new measurement procedure is implemented, the PM mass emission limits set out in this proposal will be recalibrated, as the new technique records a lower level of mass than the current method.
- (11) The Commission should keep under review the need to revise the New European Drive Cycle as the test procedure that provides the basis of EC type approval emissions regulations. Updating or replacement of the test cycles may be required to reflect changes in vehicle specification and driver behaviour. Revisions may be

¹⁵ COM(2001) 245, 4.5.2001.

¹⁶ COM(2005) 446, 21.9.2005.

necessary to ensure that real world emissions correspond to those measured at type approval. The application of portable emissions measurement systems and the introduction of the 'not-to-exceed' regulatory concept should also be considered.

- (12) On-board diagnostic systems are important in the control of 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.
- (13) A standardised method of measuring fuel consumption and carbon dioxide emissions of vehicles is necessary to ensure that no technical barriers to trade arise between Member States. Furthermore, it is also necessary to ensure that customers and users are supplied with objective and precise information.
- (14) Member States should be able, by means of financial incentives, to accelerate the placing on the market of vehicles which satisfy the requirements adopted at Community level. However, such incentives should comply with the provisions of the Treaty, in particular the rules on state aid. This is in order to satisfy certain conditions intended to avoid distortions of the internal market. This Regulation should not affect the Member States' right to include emissions in the basis for calculating taxes levied on vehicles.
- (15) Given that the Community legislation on emissions and fuel consumption has developed over more than 35 years and is now spread over more than 24 Directives, it is advisable to replace those Directives by a new Regulation and a number of implementing measures. The use of regulations will ensure that the detailed technical provisions are directly applicable to manufacturers, approval authorities and technical services and that they can be updated in a much faster and more efficient way. Council Directive 70/220/EEC of 20 March 1970 on the approximation of the laws of the Member States on measures to be taken against air pollution by emissions from motor vehicles¹⁷ and Council Directive 80/1268/EEC of 16 December 1980 relating to the carbon dioxide emissions and the fuel consumption of motor vehicles¹⁸ should therefore be repealed. Directives 89/458/EEC¹⁹, 91/441/EEC²⁰, 93/59/EEC²¹, 94/12/EC²², 96/69/EC²³, 98/69/EC²⁴ and 2004/3/EC²⁵ should also be repealed. In

¹⁷ OJ L 76, 6.4.1970, p. 1 Directive as last amended by Commission Directive 2003/76/EC (OJ L 206, 15.8.2003, p. 29).

¹⁸ OJ L 375, 31.12.1980, p. 36 Directive as last amended by Directive 2004/3/EC of the European Parliament and of the Council (OJ L 49, 19.2.2004, p. 36).

¹⁹ Council Directive 89/458/EEC of 18 July 1989 amending with regard to European emission standards for cars below 1,4 litres Directive 70/220/EEC on the approximation of the laws of the Member States relating to measures to be taken against air pollution by emissions from motor vehicles (OJ L 226, 3.8.1989, p. 1).

²⁰ Council Directive 91/441/EEC of 26 June 1991 amending Directive 70/220/EEC on the approximation of the laws of the Member States relating to measures to be taken against air pollution by emissions from motor vehicles (OJ L 242, 30.8.1991, p. 1).

²¹ Council Directive 93/59/EEC of 28 June 1993 amending Directive 70/220/EEC on the approximation of the laws of the Member States relating to measures to be taken against air pollution by emissions from motor vehicles (OJ L 186, 28.7.1993, p. 21).

²² Directive 94/12/EC of the European Parliament and the Council of 23 March 1994 relating to measures to be taken against air pollution by emissions from motor vehicles and amending Directive 70/220/EEC (OJ L 100, 19.4. 1994, p. 42).

addition, the Member States should also repeal the transposing legislation of the repealed Directives.

- (16) Council Directive 72/306/EEC of 2 August 1972 on the approximation of the laws of the Member States relating to the measures to be taken against the emission of pollutants from diesel engines for use in vehicles²⁶ should be amended as all requirements related to the measurement of smoke opacity with light duty vehicles should be included in this Regulation and its implementing measures.
- (17) In order to ensure a smooth transition from the existing Directives to the present Regulation, the applicability of this Regulation should be deferred by a certain period after its entry into force. However, during that period manufacturers should be able to choose to have vehicles approved under either the existing Directives or this Regulation. Moreover, the provisions on financial incentives should be applicable immediately after the entry into force of this Regulation. The validity of type approvals granted under those Directives is not to be affected by the entry into force of this Regulation.
- (18) The measures necessary for the implementation or amendment 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 Commission²⁷.
- (19) The objectives of this Regulation, namely the realisation of the internal market through the introduction of common technical requirements concerning emissions from motor vehicles, cannot be sufficiently achieved by the Member States. Due to the scale of the action required the objectives can be better achieved at a Community level. Therefore, 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 for that purpose,

²³ Directive 96/69/EC of the European Parliament and of the Council of 8 October 1996 amending Directive 70/220/EEC on the approximation of the laws of the Member States relating to measures to be taken against air pollution by emissions from motor vehicles (OJ L 282, 1.11.1996, p. 64).

²⁴ Directive 98/69/EC of the European Parliament and of the Council of 13 October 1998 relating to measures to be taken against air pollution by emissions from motor vehicles and amending Council Directive 70/220/EEC (OJ L 350, 28.12.1998, p. 1).

²⁵ Directive 2004/3/EC of the European Parliament and of the Council of 11 February 2004 amending Council Directives 70/156/EEC and 80/1268/EEC as regards the measurement of carbon dioxide emissions and fuel consumption of N1 vehicles (OJ L 49, 19.2.2004, p. 36).

²⁶ OJ L 190, 20.8.1972, p. 1. Directive as last amended by Commission Directive 2005/21/EC (OJ L 61, 8.3.2005, p. 25).

²⁷ OJ L 184, 17.7.1999, p. 23.

HAVE ADOPTED THIS REGULATION:

CHAPTER I

Subject matter, scope and definitions

Article 1 *Subject matter*

This Regulation establishes requirements for the type approval of motor vehicles and replacement parts, such as replacement catalytic converters, with regard to their emissions.

In addition, this Regulation lays down rules for in use compliance, durability of anti-pollution devices, on-board diagnostic (OBD) systems, measurement of fuel consumption and accessibility of vehicle repair information.

Article 2 *Scope*

1. This Regulation shall apply to motor vehicles equipped with:
 - (a) positive ignition engines;
 - (b) positive ignition engines fuelled by gas of categories M₁ and N₁ as defined in [Annex II] of Directive [XXXX/XX/EC]; and
 - (c) compression ignition engines of categories M₁ and N₁ as defined in [Annex II] of Directive [XXXX/XX/EC].
2. At the manufacturer's request this Regulation may also apply to motor vehicles equipped with compression ignition engines of categories M₂ and N₂, as defined in [Annex II] of Directive [XXXX/XX/EC], having a reference mass not exceeding 2 840 kg and which meet the conditions laid down in this Regulation and its implementing measures.

Article 3 *Definitions*

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

- (1) "hybrid vehicle" means a vehicle with at least two different energy converters and two different energy storage systems (on vehicle) for the purpose of vehicle propulsion;
- (2) "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;
- (3) "gaseous pollutants" means the exhaust gas emissions of carbon monoxide, oxides of nitrogen, expressed in nitrogen dioxide (NO₂) equivalent, and hydrocarbons

assuming ratio of: C₁H_{1.85} for petrol, C₁H_{1.86} for diesel, C₁H_{2.525} for LPG, CH₄ for NG;

- (4) “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 test procedure for verifying average tailpipe emissions;
- (5) “tailpipe emissions” means the emission of gaseous and particulate pollutants;
- (6) “evaporative emissions” means the hydrocarbon vapours lost from the fuel system of a motor vehicle other than those from tailpipe emissions;
- (7) “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 escape;
- (8) “anti-pollution device” means those components of a vehicle that control and/or limit tailpipe and evaporative emissions;
- (9) “on-board diagnostic system” or “OBD system” means a system for emission control which has the capability of identifying the likely area of malfunction by means of fault codes stored in computer memory;
- (10) “defeat device” means any element of design which senses temperature, vehicle speed, engine speed (RPM), transmission gear, manifold vacuum or any other parameter for the purpose of activating, modulating, delaying or deactivating the operation of any part of the emission control system, that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use;
- (11) “original equipment catalytic converter” means a catalytic converter or an assembly of catalytic converters covered by the type approval delivered for the vehicle;
- (12) “replacement catalytic converter” means a catalytic converter or an assembly of catalytic converters intended to replace an original equipment catalytic converter which can be approved as a separate technical unit as defined in Directive [XXXX/XX/EC];
- (13) “vehicle repair information” means all information required for diagnosis, servicing, inspection, periodic monitoring, repair, re-programming or re-initialising of the vehicle and which the manufacturers provide for their authorised dealers/repair shops, including all subsequent amendments and supplements to such information.
- (14) “independent operator” means undertakings other than authorised dealers and repair shops which are directly or indirectly involved in the repair and maintenance of motor vehicles, in particular repairers, manufacturers of repair equipment or tools, distributors of spare parts, publishers of technical information, automobile clubs, roadside assistance operators, operators offering inspection and testing services and operators offering training for repairers.

Chapter II

Obligations of the manufacturers

Article 4 *Manufacturers' obligations*

1. Manufacturers shall ensure that all vehicles brought forward for type approval to be sold, registered or put into service in the Community comply with this Regulation and its implementing measures.

That obligation includes meeting the emission limits set out in Annex I and the implementing measures referred to in Article 5.

2. Manufacturers shall ensure that type approval procedures for verifying conformity of production, durability of pollution control devices and in-use compliance are met. In-use compliance measures shall be checked for a period of up to 5 years or 100 000 km, whichever is the sooner. Durability testing of pollution control devices undertaken for type approval shall cover 160 000 km.
3. Manufacturers shall set out carbon dioxide emissions and fuel consumption figures in a document given to the purchaser of the vehicle at the time of purchase.
4. The Commission shall establish, in accordance with the procedure referred to in Article 37(2) of Directive [XXXX/XX/EC], the specific procedures and requirements for the implementation of paragraphs 2 and 3.

Article 5 *Requirements and tests*

1. The manufacturer shall equip vehicles so that the components likely to affect emissions are designed, constructed and assembled so as to enable the vehicle, in normal use, to comply with this Regulation and its implementing measures.
2. The use of defeat devices that reduce the effectiveness of emission control systems shall be prohibited except in the following cases:
 - a) the need for the device is justified in terms of protecting the engine against damage or accident and for safe operation of the vehicle, or
 - b) the device does not function beyond the requirements of engine starting, or
 - c) conditions are substantially included in the test procedures for verifying evaporative emissions and average tailpipe emissions.
3. Manufacturers shall demonstrate compliance with this Regulation and its implementing measures in order to obtain type approval for their vehicles.
4. The Commission shall establish the specific procedures, tests and requirements for type approval including specification of the requirements relating to:

- a) tailpipe emissions, including test cycles, low ambient temperature emissions, emissions at idling speed, smoke opacity and correct functioning and regeneration of after-treatment systems;
 - b) evaporative emissions and crankcase emissions;
 - c) on-board diagnostic systems and in-use performance of anti-pollution devices;
 - d) durability of anti-pollution devices, replacement emission control systems, in use compliance, conformity of production and roadworthiness;
 - e) carbon dioxide emissions and fuel consumption;
 - f) hybrid vehicles;
 - g) extension of type approvals and requirements for small volume manufacturers;
 - h) requirements for test equipment; and
 - i) reference fuels, such as petrol, diesel, gaseous fuels and biofuels.
5. The Commission shall keep under review the pollutants subject to the requirements and tests referred to in paragraph 4 as well as the test cycles used to measure emissions and shall adopt the necessary measures if it finds that the procedures or tests are no longer adequate or do no longer reflect real world emissions.
6. The Commission shall establish, in accordance with the procedure referred to in Article 37(2) of Directive [XXXX/XX/EC], the specific procedures, tests and requirements for the implementation of paragraphs 2 to 5.

CHAPTER III

Access to vehicle repair information

Article 6 *Manufacturers' obligations*

1. Manufacturers shall provide unrestricted and standardised access to vehicle repair information to independent operators through websites in a readily accessible and prompt manner, and in a manner which is non-discriminatory compared to access granted to authorised dealers and repair shops.
2. The information referred to in paragraph 1 shall include:
 - (a) an unequivocal vehicle identification;
 - (b) service handbooks;
 - (c) technical manuals;

- (d) component and diagnosis information (such as minimum and maximum theoretical values for measurements);
 - (e) wiring diagrams;
 - (f) diagnostic trouble codes (including manufacturer specific codes);
 - (g) the software calibration identification number applicable to a vehicle type;
 - (h) information provided concerning, and delivered by means of, proprietary tools and equipment; and
 - (i) data record information and two-directional monitoring and test data.
3. Authorised dealers or repairers within the distribution system of a given vehicle manufacturer shall be regarded as independent operators for the purposes of this Regulation to the extent that they provide repair or maintenance services for vehicles in respect of which they are not members of the vehicle manufacturer's distribution system.
 4. The vehicle repair information shall be always available, except as required for maintenance purposes.
 5. For the purposes of manufacture and servicing of OBD-compatible replacement or service parts and diagnostic tools and test equipment, manufacturers shall provide vehicle repair information on a non-discriminatory basis to any interested component, diagnostic tools or test equipment manufacturer and/or repairer.
 6. When applying for EC type approval or national type approval, the manufacturer shall provide proof of compliance with this Regulation relating to access to vehicle repair information and to the information referred to in paragraph 5 to the type approval authority.

In the event that such information is not yet available or does not yet conform to this Regulation and its implementing measures at that point in time, the manufacturer shall provide it within six months from the date of approval. If such proof of compliance is not provided within that period, the approval authority shall take appropriate measures to ensure compliance, including withdrawal of type approval.

The manufacturer shall make subsequent amendments and supplements to vehicle repair information available on its websites at the same time they are made available to authorised repairers.

Article 7 *Fees for access to vehicle repair information*

1. Manufacturers may charge reasonable and proportionate fees for access to vehicle repair information covered by this Regulation; a fee is not reasonable or proportionate if it discourages access by failing to take into account the extent to which the independent operator uses it.

2. Manufacturers shall make available vehicle repair information on a daily, monthly, and yearly basis, with fees for access to such information varying in accordance with the respective periods of time for which access is granted.

Article 8
Implementing measures

The Commission shall adopt, in accordance with the procedure referred to in Article 37(2) of Directive [XXXX/XX/EC], the measures necessary for implementation of Article 6 and Article 7. This shall include the definition of technical specifications relating to the way in which vehicle repair information shall be provided.

CHAPTER IV

Obligations of Member States

Article 9
Type approval

1. With effect from [date of entry into force], if a manufacturer so requests, the national authorities may not, on grounds relating to emissions or fuel consumption of motor vehicles, refuse to grant EC type approval or national type approval for a new type of vehicle, or prohibit the registration, sale or entry into service of a new vehicle, where the vehicle concerned complies with this Regulation and its implementing measures.
2. With effect from [18 months plus one day from the date of entry into force], and from [30 months from the date of entry into force] in the case of category N₁ class II and III, the national authorities shall refuse, on grounds relating to emissions or fuel consumption, to grant EC type approval or national type approval in respect of new types of vehicle which do not comply with this Regulation and its implementing measures.
3. With effect from [36 months from the date of entry into force], and from [48 months from the date of entry into force] in the case of category N₁ class II and III, 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 25] of Directive [XXXX/XX/EC] and shall, on grounds relating to emissions or fuel consumption, refuse registration and prohibit the sale and entry into service of such vehicles.

Article 10
Type approval of replacement components

1. For new replacement catalytic converters intended to be fitted on EC type approved vehicles which are not equipped with on-board diagnostic systems (OBD), national authorities shall refuse their sale or installation on a vehicle if they are not of a type in respect of which a type approval has been granted in compliance with this Regulation.

2. Notwithstanding paragraph 1, national authorities may continue to grant extensions to EC type approvals for replacement catalytic converters under the terms under which they were originally granted.

Article 11
Financial incentives

1. Member States may make provision for financial incentives in respect of motor vehicles in series production which comply with this Regulation.

Those incentives shall be valid for all new vehicles offered for sale on the market of a Member State which comply with this Regulation and its implementing measures in advance of the dates set out in Article 9(3).

They shall cease on the dates set out in Article 9(3).

2. Member States may make provision for financial incentives for the retrofitting of in-use vehicles to meet the emission limits laid down in this Regulation and for scrapping vehicles which do not comply.
3. The financial incentives referred to in paragraphs 1 and 2 shall for each type of motor vehicle be for an amount lower than 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 in sufficient time of plans to institute or change the financial incentives referred to in paragraphs 1 and 2.

Article 12
Penalties

Member States shall lay down the provisions on penalties applicable for infringement of the provisions of the present 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 no later than eighteen months after entry into force of this Regulation and shall notify it without delay of any subsequent amendment affecting them.

CHAPTER V
Final provisions

Article 13
Redefinition of Specifications

1. By [6 months after entry into force] the Commission shall examine the need to redefine the emission limit value of hydrocarbons set out in Annex I, to consider emissions of non-methane hydrocarbons and methane separately.

2. Consideration shall also be given to including methane emissions in the calculation of carbon dioxide emissions.
3. If necessary, the Commission may take the following measures with regard to paragraphs 1 and 2:
 - a) amend this Regulation in accordance with Article 14 for the purpose of recalibrating the limit values for hydrocarbons set out in Annex I to this Regulation;
 - b) adopt, in accordance with Article 37(2) of Directive [XX/XXXX/EC] measures to test, account for, or limit, methane emissions.
4. After the completion of the UN/ECE Particulate Measurement Programme, conducted under the auspices of the World Forum for Harmonization of Vehicle Regulations, the Commission shall take the following measures:
 - a) amend this Regulation in accordance with Article 14 for the purpose of recalibrating the particulate mass based limit values set out in Annex I to this Regulation, and introducing particulate number based limit values in that Annex so that they correlate broadly with the petrol and diesel mass limit values;
 - b) adopt, in accordance with Article 37(2) of Directive [XX/XXXX/EC] a revised measurement procedure for particulates and a particulate number limit value.

Article 14
Amendments

The Commission may, in accordance with the procedure referred to in Article 37(2) of Directive [XX/XXXX/EC], amend this Regulation pursuant to Article [36(2), (3), (4)] of that Directive.

Article 15
Amendments to Directive [XXXX/XX/EC]

Annexes IV, VI and XI to Directive [XX/XXXX/EC] are amended in accordance with Annex II to this Regulation.

Article 16
Amendments to Directive 72/306/EEC

In Article 1 of Directive 72/306/EEC the following paragraph is added:

‘However, this Directive shall not apply to those vehicles referred to in Article 2 of [this Regulation].’

Article 17

Repeal

1. Directives 70/220/EEC, 80/1268/EEC, 89/458/EEC, 91/441/EEC, 93/59/EEC, 94/12/EC, 96/69/EC, 98/69/EC and 2004/3/EC are repealed with effect from [18 months from the date of entry into force of this Regulation].
2. References to the repealed Directives shall be construed as references to this Regulation.

Article 18

Entry into force

1. This Regulation shall enter into force on the third day following that of its publication in the *Official Journal of the European Union*.
2. This Regulation shall apply from [18 months + 1 day after entry into force], with the exception of Articles 9(1) and 11.
3. If the adoption of the amendments or implementing measures referred to in Article 5(6) and Article 13(1) and (3) is delayed beyond [6 months after the date of entry into force of this Regulation], the dates mentioned in paragraphs 2 and 3 of Article 9 shall be replaced by the dates mentioned in the amendments or implementing measures.

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

ANNEXES

ANNEX I – Emission limits

ANNEX II – Amendments to Directive [XXXX/XX/EC]

ANNEX I – Emission limits

Table 1: Euro 5 Emission Limits

Category		Reference mass (RM) (kg)	Limit values												
			Mass of carbon monoxide (CO)		Mass of hydrocarbons (HC)		Mass of oxides of nitrogen (NO _x)		Combined mass of hydrocarbons and oxides of nitrogen (HC + NO _x)		Mass of particulates (PM)		Number of particulates ⁽¹⁾ (PM)		
			L ₁ (mg/km)		L ₂ (mg/km)		L ₃ (mg/km)		L ₂ + L ₃ (mg/km)		L ₄ (mg/km)		L ₅ (#/km)		
Class		PI	CI	PI	CI	PI	CI	PI	CI	PI	CI	PI ⁽²⁾	CI	PI	CI
M	—	All	1000	500	75	—	60	200	—	250	5.0	5.0			
N ₁	I	RM ≤ 1305	1000	500	75	—	60	200	—	250	5.0	5.0			
	II	1305 < RM ≤ 1760	1810	630	100	—	75	260	—	320	5.0	5.0			
	III	1760 < RM	2270	740	120	—	82	310	—	380	5.0	5.0			

Key: PI = Positive Ignition, CI = Compression Ignition

(1) A number standard is to be defined at a later stage.

(2) Positive ignition particulate mass standards apply only to vehicles with direct injection engines that operate either partially or wholly in lean burn mode.

Table 2 - Emission Limit for the Evaporative Emissions Test

Mass of Evaporative Emission (g/test)
2

Table 3 - Emission Limit for the Carbon Monoxide and Hydrocarbon Tailpipe Emissions after a Cold Start Test

Test temperature 266 K (– 7 °C)			
Vehicle Category	Class	Mass of carbon monoxide (CO) L ₁ (g/km)	Mass of hydrocarbons (HC) L ₂ (g/km)
M	—	15	1.8
N ₁	I	15	1.8
	II	24	2.7
	III	30	3.2

ANNEX II: Amendments to Directive [XXXX/XX/EC]

Directive [XXXX/XX/EC] is amended as follows:

1. In Annex IV, part I, point 2 of the table shall be replaced by the following:

Subject	Regulatory act reference	Official Journal reference	Applicability									
			M ₁	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄
2. Emissions	[.../.../EC]	L ..., ..., p. ...	X	X	X	X	X	X				

2. In Annex IV, part I, Appendix 1 point 2 of the table shall be replaced by the following:

	Subject	Regulatory act reference	Official Journal reference	M ₁
2.	Emissions	[.../.../EC]	L ..., ..., p. ...	A

3. In Annex VI, Appendix 1 point 2 of the table shall be replaced by the following:

Subject	Regulatory act reference	As amended by	Applicable to Variants
2. Emissions	[.../.../EC]		

4. In Annex XI, Appendix 1 point 2 of the table shall be replaced by the following:

Item	Subject	Regulatory act reference	M ₁ ≤ 2 500 (l) kg	M ₁ > 2 500 (l) kg	M ₂	M ₃
2	Emissions	[.../.../EC]	Q	G+Q	G+Q	G+Q

5. In Annex XI, Appendix 2 point 2 of the table shall be replaced by the following:

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
2	Emissions	[.../.../EC]	A	A	A	A	A	A				

6. In Annex XI, Appendix 3 point 2 of the table shall be replaced by the following:

Item	Subject	Regulatory act reference	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄
2	Emissions	[.../.../EC]	Q	Q	Q	Q	Q				

7. In Annex XI, Appendix 4 point 2 of the table shall be replaced by the following:

Item	Subject	Regulatory act reference	Mobile crane of category N3
2	Emissions	[.../.../EC]	X