This draft document has been developed by the Commission services with the sole view of consulting stakeholders. It does not constitute a Commission proposal and does not commit the Commission in any way.

Preliminary draft proposal for a Regulation of the European Parliament and of the Council relating to emissions of atmospheric pollutants from motor vehicles (Euro 5)

EXPLANATORY MEMORANDUM

1. OBJECTIVE 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 emissions of atmospheric pollutants.

These requirements are presently governed by 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, as amended[1].

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"[2] 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.

2. NEW REGULATORY APPROACH

This 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 emissions[3] 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 (hereafter termed the 'co-decision proposal');

– secondly, the technical specifications implementing the fundamental provisions would be laid down in a Regulation adopted by the Commission with the assistance of a regulatory committee (hereafter termed the 'comitology proposal').

3. BACKGROUND

In early 2004, anticipating the entry into force of Euro 4 emission standards for light duty vehicles in 2005, the Commission 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. This information

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1 OJ L 76, 6.4.1970, p. 1.
2 COM (2003) 71 final, 11.2.2003.
3 COM (2003) 522 final, 5.9.2003; 2003/0205 (COD)

was collated and was used in modelling of the environmental and economic impacts of a number of the emission limit scenarios. This process has also been supported by discussions on specific issues with a number of key stakeholders.

Euro 4 emission limits for cars and light commercial vehicles came into force on 1 January 2005 for new type-approvals. 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 published a staff working paper 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 5mg/km value set out in the working paper. Member States which have indicated interest in fiscal incentives include the Netherlands, Austria, Sweden, and Germany. They all have adopted or intend to adopt the 5 mg/km limit value.

The "Clean Air For Europe" (CAFÉ) programme provided the technical basis for the preparation of the Thematic Strategy on air pollution. CAFÉ assessed emissions, current and future air quality and the costs and benefits of further measures to improve air quality. On this basis, the Commission will identify the 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 NOx and particulate matter emissions.

4. CONTENT OF THE PROPOSAL

The main aspect of this Regulation is that it requires a further tightening of vehicle emission limits for NOx and particulate matter.

For diesel vehicles, only a small reduction (20%) in NOx is planned. This emission limit has been set so that reductions can be achieved by further internal engine measures, to avoid the need for NOx after treatment to be installed at this stage. As the technology for further NOx reduction is not yet mature, it is therefore proposed not to reduce NOx emissions beyond the 200 mg/km limit value.

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 - the Particulate Measurement Programme (PMP) - and 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.

The proposal includes further reductions in emissions from gasoline cars. The Commission proposes a 25% reduction in NOx 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 stochiometric 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 is to more realistically reflect the actual life of vehicles and ensure that emission control systems continue to function throughout the life of the vehicle.

A final aspect is the removal of the exception in previous legislation which enabled heavy passenger vehicles (Class M1, over 2500 kg) to be type approved as light commercial vehicles. There is no longer seen to be any justification for this exemption.

Preliminary draft proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

relating to emissions of atmospheric pollutants from motor vehicles (Euro 5)

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 Commission[7],

Having regard to the opinion of the European Economic and Social Committee[8],

Acting in accordance with the procedure laid down in Article 251 of the Treaty[9],

Whereas:

(1) Directive XXXX/XX/EC 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 vehicles[10] ("Framework Directive") establishes a comprehensive system for the type approval of motor vehicles. It does so in the interest of the free movement of motor vehicles in the internal market of the European Community. A fully harmonised internal market is essential for the competitiveness of the automotive industry which depends on large open markets for the sale and distribution of its products.

(2) [Article 9] of the Framework Directive refers to a number of regulatory acts that manufacturers have to comply with in order to obtain type approval. The present Regulation constitutes such a separate legal act.

(3) Its objective 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 emissions of atmospheric pollutants.

(4) One of the strategic objectives of the Commission in the coming years is to work, in partnership with the European Parliament and the Council, towards creating long-term prosperity in Europe, and in particular to restore sustainable dynamic growth and jobs, in accordance with the Lisbon strategy. Delivering on this far-reaching goal

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7 OJ C […], […], p. […].
8 OJ C […], […], p. […].
9 OJ C […], […], p. […].
10 This refers to the Commission's proposal 2004/0153 (COD) that is pending in the codecision process. References to the Framework Directive will be updated as soon as it is adopted.

will require not only horizontal actions affecting all enterprises, but also vertical initiatives, focusing on the specificities of particular sectors including the automotive industry.

(5) In early 2004, anticipating the entry into force of Euro 4 emission standards for light duty vehicles in 2005, the Commission 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. This information was collated and was used in modelling of the environmental and economic impacts of a number of the emission limit scenarios.

(6) In March 2001 the Commission launched the Clean Air For Europe (CAFÉ) programme, the major elements of which are outlined in a communication[11]. This will lead to the adoption of a thematic strategy on air pollution[12]. One of the conclusions of the thematic strategy is that further reductions in vehicle emissions are needed to achieve European air quality objectives.

(7) In setting emissions standards it is important to take into account the implications for markets and business 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.

(8) 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 and satisfy certain conditions intended to avoid distortions of the internal market. This Regulation does not affect the Member States' right to include emissions of pollutants and other substances in the basis for calculating taxes levied on vehicles.

(9) The Commission should closely monitor technological developments in emission control and, where appropriate, adapt this Regulation thereto.

(10) For reasons of clarity it is advisable to repeal Directive 70/220/EEC and its amending Directives and replace them by this Regulation and its implementing measures.

(11) In order to simplify and accelerate the procedure, the Commission should be entrusted with the task of adopting measures implementing the provisions laid down in this Regulation as well as the measures for adapting this Regulation to scientific and technical progress. These measures should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999, which lays down the procedures for the exercise of implementing powers conferred on the Commission[13].

(12) The Commission should keep under review, and where necessary regulate, pollutants 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.

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11 COM(2001)245
12 COM(2005)xxx
13 OJ L 184, 17.7.1999, p. 23

(13) 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.

(14) 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.

(15) The Commission should keep under review the need to revise the New European Drive Cycle as the test procedure that provides the basis of emissions regulations. Updating or replacement may be required to reflect changes in vehicle specification and driver behaviour. Revisions may be necessary to ensure the real world emissions correspond to those measured at type approval.

(16) 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.

HAVE ADOPTED THIS REGULATION:

Article 1

Subject matter

1. The purpose of this Regulation is to ensure the free circulation of motor vehicles in the internal market.

2. This Regulation is based on the principle that it is up to manufacturers to ensure that they manufacture and place on the market motor vehicles that do not adversely affect human health or the environment. This Regulation takes as a base the need to ensure a high level of protection, taking account in particular of any new development based on scientific facts.

3. For this purpose, this Regulation covers requirements for the type-approval of vehicles regarding emissions of atmospheric pollutants. In addition it covers provisions for in use compliance, durability of anti-pollution devices, on-board diagnostic (OBD) systems and the type approval of replacement catalytic converters.

Article 2

Scope

1. This Regulation applies to all motor vehicles equipped with positive ignition engines and to motor vehicles equipped with compression ignition engines of categories M_1 and N_1 as defined in Annex [X] of [Framework Directive].

2. At the manufacturer's request this Regulation may also apply to motor vehicles equipped with compression ignition engines of categories M_2 and N_2, as defined in Annex [X] of [Framework Directive], having a reference mass not exceeding 2840 kg and which meet the conditions laid down in the implementing Regulation.

Article 3

Definitions

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

1. "vehicle" means any motor vehicle falling within the scope of this Regulation;

2. "vehicle type" means a type as defined in Section [X] of Annex [X] of [Framework Directive] ;

3. "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;

4. "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;

5. "gaseous pollutants" means the exhaust gas emissions of carbon monoxide, oxides of nitrogen, expressed in nitrogen dioxide (NO_2) equivalent, and hydrocarbons assuming ratio of:

   – $C_1H_{1.85}$ for petrol,

   – $C_1H_{1.86}$ for diesel,

   – $C_1H_{2.525}$ for LPG,

   – CH_4 for NG;

6. "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;

7. "tailpipe emissions" means the emission of gaseous and particulate pollutants;

8. "evaporative emissions" means the hydrocarbon vapours lost from the fuel system of a motor vehicle other than those from tailpipe emissions;

9. ”engine 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;

10. “engine capacity” means:

- for reciprocating piston engines, the nominal engine swept volume,
- for rotary piston (Wankel) engines, double the nominal engine swept volume;

11. “anti-pollution device” means those components of a vehicle that control and/or limit tailpipe and evaporative emissions;

12. “OBD” an on-board diagnostic system for emission control which has the capability of identifying the likely area of malfunction by means of fault codes stored in computer memory;

13. “defeat device” means any element of design which senses temperature, vehicle speed, engine 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. Such an element of design may not be considered a defeat device if:

I. 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

II. the device does not function beyond the requirements of engine starting, or

III. conditions are substantially included in the test procedures for verifying evaporative emissions and average tailpipe emissions;

14. “original equipment catalytic converter” means a catalytic converter or an assembly of catalytic converters covered by the type-approval delivered for the vehicle;

15. “replacement catalytic converter” means a catalytic converter or an assembly of catalytic converters intended to replace an original equipment catalytic converter on a vehicle approved according to [Framework Directive] which can be approved as a separate technical unit as defined in [Framework Directive].

Article 4

Manufacturers' Obligations

1. From the dates set out in this Regulation, vehicle manufacturers shall ensure that all vehicles brought forward for type approval to be sold, registered or put into service in the Community comply with the requirements of this Regulation. This obligation includes meeting the emission limits set out in Table 1, Table 2 and Table 3 and the implementing technical measures referred to in Article 5.

2. In order to ensure that vehicles sustain a good level of environmental performance whilst in use, manufacturers shall ensure that procedures for verifying conformity of production, durability of pollution control devices and in-use compliance are met. In-use compliance procedures require manufacturers to confirm the functioning of the emission control devices during the normal useful life of the vehicle under normal conditions of use. For the purposes of this Regulation, in use compliance measures shall be checked for a period of up to 5 years or 100,000km, whichever is the sooner. Durability testing of pollution control devices undertaken for type approval shall cover a period of [160,000] km.

3. Manufacturers shall provide to type approval authorities appropriate information about the vehicle specifications and test conditions. These data should include these required for the purposes of manufacture and servicing of OBD compatible replacement or service parts and diagnostic tools and test equipment. This OBD related information will be made available on a non discriminatory basis to any interested component, diagnostic tools or test equipment manufacturer and/or repairer.

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 the requirements of this Regulation.

2. The use of defeat devices that reduce the effectiveness of emission control systems is prohibited.

3. Manufacturers shall demonstrate compliance with the requirements of this Regulation in order to obtain type approval for their vehicles. The specific procedures for type approval shall include verification of the requirements relating to:

   - Average tailpipe emissions of pollutants after a cold start;
   - Average low ambient temperature carbon monoxide and hydrocarbon tailpipe emissions after a cold start for vehicles with positive ignition engines;
   - Evaporative emissions from vehicles with positive ignition engines;
   - The functioning of the on-board diagnostic system;
   - Durability of anti-pollution devices;
   - Carbon monoxide emissions at idling speed; and
   - Emissions of crankcase gases.

4. When carrying out the tests use shall be made of the specified reference fuels, which define the technical parameters for the fuel in question, e.g. petrol, diesel, liquid petroleum gas and natural gas fuels.

5. For hybrid vehicles, specific test procedures shall be followed which reflect the specific characteristics of these vehicles.

Article 6

Type-approval

1. From the date of entry into force of this Regulation Member States may not, on grounds relating to emissions of atmospheric pollutants from motor vehicles:

   – refuse, in respect of a new type of vehicle, to grant EC type-approval, or national type approval, or

   – prohibit the registration, sale or entry into service of new vehicles,

   on grounds relating to the emission of atmospheric pollutants, if the vehicle complies with the requirements of this Regulation.

2. With effect from [18 months from the date of entry into force] for new types of vehicles, Member States shall no longer grant EC type-approval or national type-approval on grounds relating to the emission of atmospheric pollutants if the requirements of this Regulation are not fulfilled.

3. With effect from [36 months from the date of entry into force] for new vehicles, Member States shall:

   – consider certificates of conformity to be no longer valid for the purposes of Article [X] of [Framework Directive], and

   – refuse registration and prohibit the sale and entry into service of vehicles,

   on grounds relating to the emission of atmospheric pollutants, if the vehicle does not comply with the requirements of this Regulation.

4. For new replacement catalytic converters intended to be fitted on EC type approved vehicles which are not equipped with on-board diagnostic systems (OBD), Member States 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.

5. Notwithstanding paragraph 4, Member States may continue to grant extensions to EC type-approvals for replacement catalytic converters under the terms of the Directive under which they were originally granted.

Article 7

Financial incentives

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

Such incentives shall comply with the provisions of the Treaty and satisfy the following conditions:

– they shall be valid for all new vehicles offered for sale on the market of a Member State which comply in advance with the requirements of this Regulation,

– they shall cease on the dates set in Article 6(3) for the mandatory application of emission values for new motor vehicles,

– for each type of motor vehicle they shall be for an amount lower than the additional cost of the technical devices introduced to ensure compliance with the values set, including the cost of installation on the vehicle.

The Commission shall be informed in sufficient time of plans to institute or change the incentives referred to in the first subparagraph, so that it can submit its observations.

2. Member States may inter alia introduce financial incentives for the retrofitting of in-use vehicles to meet the values laid down in this Regulation or previous amendments to Directive 70/220/EEC, and for scrapping vehicles which do not comply.

Article 8

Continuous validity of type-approval

This Regulation shall not invalidate any type approval previously granted pursuant to Directive 70/220/EEC.

Article 9

Implementing measures

1. By [18 months from the date of entry into force], the measures for the implementation of the provisions of the Regulation and in particular of Articles 4, 5 and 6 thereof, shall be adopted in accordance with the procedure of Article [36] of the [Framework Directive].

2. If the adoption of the implementing measures is delayed beyond [18 months after the date of adoption of this Regulation] the dates mentioned in Articles: 6 (2), 6(3), 12(1) and 12(3) shall be replaced by a date 3 months after entry into force of these implementing measures.

Article 10

Amendments to [Framework Directive]

[Framework Directive] is hereby amended in accordance with Annex II to this Regulation.

Article 11

Sanctions for non-compliance

1. 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.

2. In case where the provisions of the Member States require a fine, the amount of the fine shall be determined according to the gravity and duration of the infringement, the extent of damage to the environment and human health and any aggravating or attenuating circumstances, as appropriate. It shall be set at a level which ensures that it has a deterrent effect.

Article 12

Legislation to be repealed

1. The following Directives are hereby repealed with effect from [18 months from the date of entry into force of this Regulation].

   – Council Directive 70/220/EEC,

   – Council Directive 74/290/EEC,

   – Commission Directive 77/102/EEC,

   – Commission Directive 78/665/EEC,

   – Council Directive 83/351/EEC,

   – Council Directive 88/76/EEC,

   – Council Directive 88/436/EEC,

   – Council Directive 89/458/EEC,

   – Annex II of the Commission Directive 89/491/EEC,

   – Council Directive 91/441/EEC,

   – Council Directive 93/59/EEC,

– European Parliament and Council Directive 94/12/EC,

– Commission Directive 96/44/EC,

– European Parliament and Council Directive 96/69/EC,

– European Parliament and Council Directive 98/69/EC,

– Commission Directive 98/77/EC,

– Commission Directive 1999/102/EC,

– European Parliament and Council Directive 2001/1/EC,

– European Parliament and Council Directive 2001/100/EC,

– Commission Directive 2002/80/EC,

– Commission Directive 2003/76/EC.

2. References made to the repealed Directives shall be construed as being references to this Regulation.

3. By [18 months from the date of entry into force of this Regulation] Member States shall repeal their laws, regulations and administrative provisions adopted pursuant to the Directives provided for in paragraph 1.

Article 13

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*.

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 [Framework Directive]

ANNEX I – Emission limits

Table 1: Euro 5 Emission Limits

		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(1) (PM)		Number of particulates(2) (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)	
Category	Class		Petrol	Diesel	Petrol	Diesel	Petrol	Diesel	Petrol	Diesel	Petrol[3]	Diesel	Petrol	Diesel
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]	[8.0]	[8.0]		
	III	1760 < RM	2270	740	[120]	—	[82]	[310]	—	[380]	[12]	[12]		

(1) PM limit values relate to the existing measurement procedure. A revised measurement procedure shall be adopted once the work of the UN/ECE Particulate Measurement Programme is complete and the limit values will be adjusted accordingly to reflect the differences in the measurement techniques. This shall be done according to the procedure referred to in Article 9.

(2) After the completion of the UN/ECE Particulate Measurement Programme, a PM number standard may be introduced. The standards would be set so that they broadly correlate with the petrol and diesel mass standards. In the absence of a number standard, manufacturers should collect the PM number data and make these available at type approval. This shall be done according to the procedure referred to in Article 9.

(3) Petrol particulate mass standards apply only to vehicles which use lean burn direct injection engines.

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_1	—	15	1,8
N_1	I	15	1,8
N_1	II	24	2,7
	III	30	3,2

ANNEX II: Amendments to [Framework Directive].

[Framework Directive] 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 1, 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	$M_1 \leq 2\,500$ ([1]) kg	$M_1 > 2\,500$ ([1]) 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

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