



EUROPEAN COMMISSION
ENTERPRISE AND INDUSTRY DIRECTORATE-GENERAL
Consumer goods
Automotive industry

Brussels, 11/05/07
F1 D(2007)

**EC PROPOSAL FOR A CORRIGENDUM RELATING TO
DOCUMENT ECE/TRANS/WP.29/2007/26**

1. Paragraph 1.1., amend to read:

"1.1. This Regulation applies to vehicles of categories M and N 1/ and their engines, as shown in table A, with regard to the tests foreseen for these engines in table B. It also applies to **the installation of these engines on vehicles.**

Table A: APPLICABILITY

Vehicle category <u>1/</u>	Maximum mass	Positive-ignition engines			Compression-ignition engines	
		Petrol	NG ^(a)	LPG ^(b)	Diesel	Ethanol
M ₁	≤ 3.5 t	-	-	-	-	-
	> 3.5 t	-	R49	R49	R49	R49
M ₂	-	-	R49	R49	R49 or R83 ^{(c)(d)}	R49
M ₃	-	-	R49	R49	R49	R49
N ₁	-	-	R49 or R83 ^(d)	R49 or R83 ^(d)	R49 or R83 ^(d)	R49
N ₂	-	-	R49	R49	R49 or R83 ^{(c)(d)}	R49
N ₃	-	-	R49	R49	R49	R49

^(a) Natural Gas.

^(b) Liquefied Petroleum Gas.

^(c) Regulation No. 83 applies only for vehicles with a reference mass ≤ 2,840 kg as an extension of an approval given for a vehicle of categories M₁ or N₁. 1/

^(d) "R49 or R83" means that manufacturers can obtain type approval according to this Regulation or to Regulation No. 83, see paragraph 1.2.

Table B: REQUIREMENTS

	Positive-ignition engines			Compression-ignition engines	
	Petrol	NG	LPG	Diesel	Ethanol
Gaseous pollutants	-	Yes	Yes	Yes	Yes
Particulates	-	Yes^(a)	Yes^(a)	Yes	Yes
Smoke	-	-	-	Yes	Yes
Durability	-	Yes	Yes	Yes	Yes
In-service-conformity	-	Yes	Yes	Yes	Yes
OBD	-	Yes^(b)	Yes^(b)	Yes	Yes

^(a) **Only applicable to stage C in Table 2 of paragraph 5.2.1.**

^(b) **Application dates according to paragraph 5.4.2.**

2. Paragraph 1.2., amend to read:

"1.2. Equivalent approvals

The following do not need to be approved according to this Regulation, if they are part of a vehicle approved according to Regulation No. 83:

- (a) compression-ignition engines to be mounted in vehicles of categories N₁, N₂ and M₂ 1/ fuelled with diesel;
- (b) positive-ignition engines fuelled with natural gas (NG) or liquefied petroleum gas (LPG) to be mounted in vehicles of category N₁. 1/
- (c) **vehicles of categories N₁, N₂ and M₂ 1/ fitted with compression - ignition engines fuelled with diesel and vehicles of category N₁ 1/ fitted with positive-ignition engines fuelled with natural gas (NG) or liquefied petroleum gas (LPG)**

3. Paragraph 2., amend to read or add new definitions:

"approval of an engine (engine family)" means the approval of an engine type (engine family) with regard to the level of the emission of gaseous and particulate pollutants, **smoke and the on-board diagnostic (OBD) system;**

"approval of a vehicle" means the approval of vehicle type with regard to the level of the emission of gaseous and particulate pollutants and smoke by its engine as well as the on-board diagnostic (OBD) system and the engine installation on the vehicle;

"rated speed" means the maximum full load engine speed allowed by the governor, or, if such a governor is not present, the speed at which the maximum power is obtained from the engine, as specified by the manufacturer in paragraph 2. of Appendix 2 to Annex 1."

"vehicle" means, for the purpose of this Regulation, any power driven vehicle of category 1-1 with a gross vehicle mass higher than 3.5 t., and of category 1-2 and 2, as defined in the Special Resolution No.1, having a design speed exceeding 25 km/h and having a maximum mass exceeding 3.5 tonnes.

"vehicle type" means a category of power driven vehicles which do not differ in such essential respects as the vehicle and engine characteristics as specified in Annex 1 of this Regulation.

4. Paragraph 3.1., amend to read:

"3.1.1. The application for approval of an engine type or engine family with regard to the requirements listed in table B, paragraph 1.1. shall be submitted by the engine manufacturer or by a duly accredited representative.

Should the application concern an engine equipped with an on-board diagnostic (OBD) system, the requirements of paragraph 3.4. shall be fulfilled."

5. Paragraph 3.2.1., amend to read:

"3.2.1. The application for approval of a vehicle type with regard to the requirements for its engine, or engine family, listed in table B of paragraph 1.1. and the installation of the engine on the vehicle shall be submitted by the vehicle manufacturer or by a duly accredited representative.

Should the application concern an engine equipped with an on-board diagnostic (OBD) system, the requirements of paragraph 3.4. shall be fulfilled."

6. Add a new paragraph 3.2.4., to read:

"3.2.4. A vehicle conforming to the "vehicle type" characteristics defined in Annex 1 shall be submitted to the technical service responsible for conducting the approval tests defined in paragraphs 5 and 6."

6. Paragraph 3.3.1., amend to read:

"3.3.1. The application for approval of a vehicle type with regard to the installation of an approved engine on the vehicle shall be submitted by the vehicle manufacturer or by a duly accredited representative."

7. **Add a new paragraph 3.3.4., to read:**

"3.3.4. A vehicle conforming to the "vehicle type" characteristics defined in Annex 1 shall be submitted to the technical service responsible for conducting the approval tests defined in paragraph 6."

8. **Paragraph 3.4.1., amend to read:**

"3.4.1. The application for approval **of a vehicle or** an engine (engine family) equipped with an on-board diagnostic (OBD) system shall be accompanied by the information required in paragraph 9. of Appendix 1 to Annex 1 (description of the (parent) engine) and/or paragraph 6. of Appendix 3 to Annex 1 (description of an engine type within the family) together with:"

9. **Paragraph 5.2.1., amend to read:**

"5.2.1. Limit Values

The specific mass of the carbon monoxide, of the total hydrocarbons, of the oxides of nitrogen and of the particulates as determined on the ESC test and of the smoke opacity, as determined on the ELR test, shall not exceed the amounts shown in table 1.

The specific mass of the carbon monoxide, of the non-methane hydrocarbons, of the methane, of the oxides of nitrogen and of the particulates as determined on the ETC test shall not exceed the amounts shown in table 2"

10. **Paragraph 5.3.1.1., amend to read:**

"5.3.1.1. 100,000 km or five years, whichever is the sooner, in the case of engines to be fitted to vehicles of category N₁, **M₁ > 3.5 tons** and M₂ "

11. **Paragraph 5.5.3.2., amend to read:**

"5.5.3.2. Any deviation in NO_x level more than 1.5 g/kWh above the applicable limit value given in the **tables** of paragraph 5.2.1., shall result in the driver being informed by activation of the MI as referred to in paragraph 3.6.5. of Annex 9A to this Regulation."

12. **Paragraph 5.5.7.3., amend to read:**

"5.5.7.3. The torque limiter shall be activated in accordance with paragraph 5.5.5. if the failure is not remedied within 50 hours of engine operation.

The period laid down in the first subparagraph shall be reduced to 36 hours from the dates specified in paragraphs **13.2.3.** and **13.3.3.**

13. Paragraph 6.1.3., amend to read:

"6.1.3. power absorbed by the **engine-driven equipment** shall not exceed that specified for the approved engine in Annex 2A."

14. Add a new paragraph 6.1.4., to read :

"6.1.4. volume of the exhaust system shall not differ by more than 40% of that specified for the approved engine in Annex 2A."

15. Paragraphs 7.1.1. to 7.1.12., should be deleted.

16. Annex 1 - Appendix 4, paragraph 4., amend to read :

4. Power absorbed by the **engine-driven equipment** as specified in and under the operation conditions of Regulation No. 24, 03 series of amendments, Annex 10, paragraph 5.1. 1/.

Equipment	Power absorbed (kW) at various engine speeds						
	Idle	Low Speed	High Speed	Speed A ^(a)	Speed B ^(a)	Speed C ^(a)	Ref. Speed ^(b)
Engine-driven equipment (See paragraph 5.1. of Regulation No. 24/03, Annex 10).							

^(a) ESC test.

^(b) ETC test only.

1/ Data shall be specified for each member of family

17. Annex 2A, amend to read :

Annex 2A

COMMUNICATION

(maximum format: A4 (210 x 297 mm))



administration: issued by: Name of

.....
.....
.....

- concerning: 2/ APPROVAL GRANTED
 APPROVAL EXTENDED
 APPROVAL REFUSED
 APPROVAL WITHDRAWN
 PRODUCTION DEFINITELY DISCONTINUED

of a compression-ignition (C.I.) engine type **or family** (Diesel or Ethanol), or a positive-ignition (P.I.) engine type **or family** (NG or LPG), 2/ as a separate technical unit with regard to the emission of pollutants pursuant to Regulation No. 49, 05 series of amendments

Approval No. Extension No.

1. Trade name or mark of the engine:.....
2. Engine type / Engine family:.....
- 2.1 Manufacturer's code as marked on the engine 3/:
3. Combustion type: compression-ignition/positive-ignition 2/
- 3.1. Type of fuel:
4. Manufacturer's name and address:.....
5. If applicable, name and address of manufacturer's representative:

-
6. Maximum allowable intake depression 3/: kPa
7. Maximum allowable back-pressure 3/: kPa
8. Maximum permissible power absorbed by the engine-driven equipment 3/:
 Idle: kW; Low Speed: kW; High Speed: kW
 Speed A: kW; Speed B: kW; Speed C: kW;
 Reference Speed: kW

9. Volume of exhaust system: cm³

10. Restrictions of use (if any):

11. Emission levels of the engine/parent engine 2/

11.1. Emission stage (according to table in paragraph 4.6.3.)

11.2. ESC test (if applicable):

Deterioration factor (DF): calculated/fixed 2/

Specify the DF values and the emissions on the ESC test in the table below:

ESC test				
DF:	CO	THC	NOx	PT
Emissions	CO (g/kWh)	THC (g/kWh)	NOx (g/kWh)	PT (g/kWh)
Measured:				
Calculated with DF:				

11.3. ELR test (if applicable):
 smoke value: m⁻¹

11.4. ETC test:
 Deterioration factor (DF): calculated/fixed 2/

ETC test					
DF:	CO	NMHC	CH ₄	NO _x	PT
Emissions	CO (g/kWh)	NMHC (g/kWh) <u>2/</u>	CH ₄ (g/kWh) <u>2/</u>	NO _x (g/kWh)	PT (g/kWh) <u>2/</u>
Measured with regeneration:					
Measured without regeneration:					
Measured/weighted:					
Calculated with DF:					

11. Engine submitted for tests on:
13. Technical service responsible for conducting the approval tests:
14. Date of test report issued by that service:.....
15. Number of the test report issued by that service:
16. Site of approval mark on the engine:.....
- 17. Reasons for extension:.....**
18. Place:
19. Date:
20. Signature:
21. The following documents, bearing the approval number shown above, are annexed to this communication:

One copy of Annex 1 to this Regulation completed and with the drawings and diagrams referred to attached.

1/ Distinguishing number of the country which has granted/extended/refused/withdrawn approval (see approval provisions in the Regulation).

2/ Strike out what does not apply.

3/ **For each member of the family.**

18. Annex 2B, amend to read :

Annex 2B

COMMUNICATION

(maximum format: A4 (210 x 297 mm))



administration: issued by: Name of

.....
.....
.....

- concerning: 2/ APPROVAL GRANTED
APPROVAL EXTENDED
APPROVAL REFUSED
APPROVAL WITHDRAWN
PRODUCTION DEFINITELY DISCONTINUED

of a vehicle type with regard to the emission of pollutants by the engine pursuant to Regulation No. 49

Approval No. ... Extension No. ...

1. Trade name or mark of the engine:
- 1.1. Make and type of the engine:
- 1.2. Manufacturer's code as marked on the engine:
2. Vehicle make and type:
3. Vehicle manufacturer's name and address:
4. If applicable, name and address of vehicle manufacturer's representative:
.....
5. Maximum allowable intake depression: kPa

6. Maximum allowable back-pressure: kPa
7. Maximum permissible power absorbed by the engine-driven equipment:
- Idle: kW; Low Speed: kW; High Speed: kW
 Speed A: kW; Speed B: kW; Speed C: kW;
 Reference Speed: kW

8 **Volume of the exhaust system:cm³**

9. Emission levels of the engine/parent engine

9.1. Emission stage (according to table in paragraph 4.6.3.)

9.2. ESC test (if applicable):

Deterioration factor (DF): calculated/fixed 2/

Specify the DF values and the emissions on the ESC test in the table below:

ESC test				
DF:	CO	THC	NO _x	PT
Emissions	CO (g/kWh)	THC (g/kWh)	NO _x (g/kWh)	PT (g/kWh)
Measured:				
Calculated with DF:				

9.3. ELR test (if applicable):

smoke value: m⁻¹

9.4. ETC test:

Deterioration factor (DF): calculated/fixed 2/

ETC test					
DF:	CO	NMHC	CH ₄	NO _x	PT
Emissions	CO (g/kWh)	NMHC (g/kWh) <u>2/</u>	CH ₄ (g/kWh) <u>2/</u>	NO _x (g/kWh)	PT (g/kWh) <u>2/</u>
Measured with regeneration:					
Measured without regeneration:					
Measured/weighted:					
Calculated with DF:					

10. Engine submitted for tests on:

11. Technical service responsible for conducting the approval tests:

-
12. Date of test report issued by that service:
13. Number of test report issued by that service:
14. Approval number of the engine/engine family, if approved as a separate technical unit:
.....
15. Site of approval mark on the vehicle/engine 2/:
16. **Reasons for extension:**
17. Place:
18. Date:
19. Signature:

1/ Distinguishing number of the country which has granted/extended/refused/withdrawn approval (see approval provisions in the Regulation).

2/ Strike out what does not apply.

Note : All references to Regulation No 24, 02 series of amendments should be made to Regulation No 24, **03** series of amendments
