COMMISSION DIRECTIVE 98/77/EC

of 2 October 1998

adapting to technical progress Council 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

(Text with EEA relevance)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Directive 70/220/EEC of 20 March 1970 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], as last amended by Directive 96/69/EC of the European Parliament and of the Council [2],

Whereas Directive 70/220/EEC is one of the separate directives under the type-approval procedure laid down by Council Directive 70/156/EEC of 6 February 1970 on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers [3], as amended by Commission Directive 98/14/EC [4];

Whereas Article 13(2) of Directive 70/156/EEC lays down that the procedure of Article 13 shall also apply to the introduction of provisions on the type-approval of separate technical units into the separate directives;

Whereas to provide a harmonised basis to guarantee that replacement catalytic converters, intended to be fitted on vehicles of category M_1 and N_1 not equipped with on-board diagnostic systems, are of sufficient quality, it is appropriate to introduce into Directive 70/220/EEC new technical requirements for the EC type-approval of replacement catalytic converters as a separate technical unit; whereas these technical requirements are in accordance with the technical requirements adopted by the United Nations Economic Commission for Europe in its Regulation No 103 relating to the approval of replacement catalytic converters for power-driven vehicles [5];

Whereas in the light of technical progress it is appropriate to introduce into Directive 70/220/EEC new technical requirements for the EC type-approval of vehicles which can be fuelled with liquefied petroleum gas (LPG) or natural gas (NG); whereas the use of LPG and NG for the propulsion of vehicles permit to achieve very low levels of noxious emissions and should then benefit by the EC type-approval system; whereas these technical requirements are in accordance with the technical requirements adopted by the United Nations Economic Commission for Europe in its Regulation No 83 relating to the approval of vehicles with regard to their emission of pollutants [6];

Whereas it is appropriate to clarify the methods regarding the measurement of vehicle rolling resistance;

Whereas the measures provided for in this Directive are in accordance with the opinion of the Committee for Adaptation to Technical Progress established by Directive 70/156/EEC,

HAS ADOPTED THIS DIRECTIVE:

Article 1

Article 1 of Directive 70/220/EEC is replaced by the following Article:

'*Article 1*

For the purposes of this Directive:

— "vehicle" means any vehicle as defined in Annex II Section A to Directive 70/156/EEC,

— "automotive LPG or NG equipment" means any assembly of automotive LPG or NG components designed to be fitted on one or more given types of motor vehicle, which can be approved as a separate technical unit as defined in Article 4(1)(d) of Directive 70/156/EEC,

— "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 Directive 70/220/EEC, which can be approved as a separate technical unit as defined in Article 4(1)(d) of Directive 70/156/EEC.'

[1] OJ L 76, 6. 4. 1970, p. 1.
[2] OJ L 282, 1. 11. 1996, p. 64.
[3] OJ L 42, 23. 2. 1970, p. 1.
[4] OJ L 91, 25. 3. 1998, p. 1.
[5] Economic Commission for Europe Regulation No 103 (E/ECE/324-E/ECE/TRANS/505/Rev.2/Add.102).
[6] Economic Commission for Europe Regulation No 83 (E/ECE/324-E/ECE/TRANS/505/Rev.1/Add.82 as amended).

Article 2

The Annexes to Directive 70/220/EEC are amended in accordance with the Annex to this Directive.

Article 3

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

(1) with effect from 1 January 1999, may not:

— refuse to grant EC type-approval pursuant to Article 4(1) of Directive 70/156/EEC, or

— prohibit their sale or installation on a vehicle,

if they comply with the requirements of Directive 70/220/EEC as amended by this Directive;

(2) with effect from 1 October 1999 subject to the provision of Article 7(2) of Directive 70/156/EEC shall refuse the sale or installation on a vehicle of a replacement catalytic converter(s), if it is not of a type in respect of which a type-approval has been granted in compliance with Directive 70/220/EEC, as amended by this Directive.

2. With regard to new vehicles fuelled with LPG or NG or which can be fuelled with either petrol or LPG, or NG on grounds relating to air pollution by emissions, Member States:

(1) with effect from 1 January 1999 may not:

— refuse to grant EC type-approval pursuant to Article 4(1) of Directive 70/156/EEC, or

— refuse to grant national type-approval, or

— prohibit the registration, sale or entry into service

if they comply with the requirements of Directive 70/220/EEC as amended by this Directive;

(2) with effect from 1 October 1999, shall refuse the registration, sale or entry into service of new vehicles which do not comply with the provision of Directive 70/220/EEC as amended by this Directive.

Article 4

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 31 December 1998 they shall forthwith inform the Commission thereof.

When Member States adopt these provisions, they shall contain a reference to this Directive or shall be accompanied by such reference at the occasion of their official publication. The procedure for such reference shall be adopted by the Member States.

2. Member States shall communicate to the Commission the texts of the main procedure of the national law that they adopt in the field governed by this Directive.

Article 5

This Directive shall enter into force on the 20th day following its publication in the *Official Journal of the European Communities*.

Article 6

This Directive is addressed to the Member States.

Done at Brussels, 2 October 1998.

For the Commission

Martin BANGEMANN

Member of the Commission

ANNEX

AMENDMENTS TO THE ANNEXES TO DIRECTIVE 70/220/EEC

List of Annexes

1. The list of Annexes is amended as follows:

'ANNEX IX a: Specifications of gaseous reference fuels'

'ANNEX XII: EC type-approval for a vehicle fuelled by LPG or natural gas with regards to its emissions'

'ANNEX XIII: EC type-approval of replacement catalytic converter as separate technical unit

Appendix 1: Information document
Appendix 2: EC type-approval certificate
Appendix 3: EC type-approval mark'.

Annex I

2. The following paragraphs are inserted at the end of Section 1:

'This Directive also applies to:

— the EC type-approval procedure for replacement catalytic converters as separate technical units intended to be fitted on vehicles of category M_1 and N_1,

— the EC type-approval procedure of automotive LPG or NG equipment as a separate technical unit intended to be fitted on vehicles of category M_1 and N_1, with regard to its emissions.'

3. Point 2.4 shall be read as follows:

'2.4. "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.'

4. Points 2.17 to 2.21 are added to read as follows:

'2.17. "original equipment catalytic converter" means a catalytic converter or an assembly of catalytic converters covered by the type-approval delivered for the vehicle and whose types are indicated in the document in Annex II to this Directive.

2.18. "replacement catalytic converter" means a catalytic converter or an assembly of catalytic converters for which approval can be obtained according to Annex XIII to this Directive, other than those defined in point 2.17.

2.19. "automotive LPG or NG equipment" means any assembly of automotive LPG or NG components designed to be fitted on one or more given types of motor vehicles, which can be approved as a separate technical unit.

2.20. "family of vehicles" means a group of vehicle types identified by a parent vehicle for the purpose of Annex XII.

2.21. "fuel requirement by the engine" means the type of fuel normally used by the engine:
— petrol,
— LPG (liquefied petroleum gas),
— NG (natural gas),
— both petrol and LPG,
— both petrol and NG,
— diesel fuel.'

5. Point 5.1.2 is modified to read as follows:

'5.1.2. Inlet orifices of petrol tanks:'.

6. A new point 5.2.2 is added as follows:

'5.2.2. Positive-ignition engine powered vehicles fuelled with LPG or NG only shall be subjected to the following tests:

— type I (simulating the average tailpipe emissions after a cold start),

— type II (carbon monoxide emissions at idling speed),

— type III (emissions of crankcase),

— type V (durability of pollution control devices).'

7. Points 5.3.1.2.1.1 and 5.3.1.2.1.2 are added as follows:

'5.3.1.2.1.1. Vehicles that are fuelled with LPG or NG shall be tested in the type I test for variations in the composition of LPG or NG, as set out in Annex XII. Vehicles that can be fuelled either with petrol or with LPG or NG shall be tested in the type I test on both fuels, of which the fuelling on LPG or NG has to be performed for variation in the composition of LPG or NG, as set out in Annex XII.

5.3.1.2.1.2. Notwithstanding the requirement of point 5.3.1.2.1.1, vehicles that can be fuelled with both petrol and a gaseous fuel, but where the petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 15 litres of petrol will be regarded for the test type I as vehicles that can only run on a gaseous fuel.'

8. A new point 5.3.1.4.2 is added as follows:

'5.3.1.4.2. When the tests are performed with gaseous fuels, the resulting mass of gaseous emissions shall be less than the limits for petrol-engined vehicles in the above table.'

9. New points 5.3.2.1.1 and 5.3.2.1.2 are added as follows:

'5.3.2.1.1. Vehicles which can be fuelled either with petrol or with LPG or NG shall be tested in the test type II on both fuels.

5.3.2.1.2. Notwithstanding the requirement of point 5.3.2.1.1 above, vehicles that can be fuelled with both petrol and a gaseous fuel, but where the petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 15 litres of petrol will be regarded for the type II test as vehicles that can only run on a gaseous fuel.'

10. New points 5.3.3.1.1 and 5.3.3.1.2. are added as follows:

'5.3.3.1.1. Vehicles that can be fuelled either with petrol or with LPG or NG should be tested in the type III test on petrol only.

5.3.3.1.2. Notwithstanding the requirement of point 5.3.3.1.1, vehicles that can be fuelled with both petrol and a gaseous fuel, but where the petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 15 litres of petrol will be regarded for the type III test as vehicles that can only run on a gaseous fuel.'

11. Point 5.3.4.1 is amended to read:

'5.3.4.1. . . . having a compression-ignition engine, and the vehicles fuelled with LPG or NG.

5.3.4.1.1. Vehicles that can be fuelled either with petrol or with LPG or NG should be tested in the type IV test on petrol only.'

12. A new point 5.3.5.1.1 is added as follows:

'5.3.5.1.1. Vehicles that can be fuelled either with petrol or with LPG or NG should be tested in the type V test on petrol only.'

13. A new point 5.3.8 is inserted:

'5.3.8. Approval of a replacement catalytic converter.

5.3.8.1. The test must be carried out only for replacement catalytic converter intended to be fitted on EC type-approved vehicles which are not equipped with on OBD, according to Annex XIII.'

Annex II (information document)

14. Point 3.2.2 shall read as follows:

'3.2.2. Fuel: Diesel oil/Petrol/LPG/NG (1)'

15. Points 3.2.15 and 3.2.16 are added as follows:

'3.2.15. LPG fuelling system: yes/no (1)

3.2.15.1. Approval number according to Directive 70/221/EEC (*):

3.2.15.2. Electronic engine management control unit for LPG fuelling:

3.2.15.2.1. Make(s): .....

3.2.15.2.2. Type(s): .....

3.2.15.2.3. Emission-related adjustment possibilities: .....

3.2.15.3. Further documentation:

3.2.15.3.1. Description of the safeguarding of the catalyst at switch-over from petrol to LPG or back: .....

3.2.15.3.2. System lay-out (electrical connections, vacuum connections compensation hoses, etc.): .....

3.2.15.3.3. Drawing of the symbol: .....

3.2.16. NG fuelling system: yes/no (1)

3.2.16.1. Approval number according to Directive 70/221/EEC (*): .....

3.2.16.2. Electronic engine management control unit for NG fuelling:

3.2.16.2.1. Make(s): .....

3.2.16.2.2. Type(s): .....

3.2.16.2.3. Emission-related adjustment possibilities: .....

3.2.16.3. Further documentations: .....

3.2.16.3.1. Description of the safeguarding of the catalyst at switch-over from petrol to NG or back: .....

3.2.16.3.2. System lay-out (electrical connections, vacuum connections compensation hoses, etc.): .....

3.2.16.3.3. Drawing of the symbol: .....

(1) Delete where not applicable.

(*) When this Directive will be amended to cover tanks for gaseous fuels.'