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PROPOSAL FOR AMENDMENTS TO REGULATIONS Nos. 24, 49, 67, 83 and 110

(Clarification of the scopes of the Regulations)

Transmitted by the expert from the European Commission (EC)

Note: The text reproduced below was prepared by the expert from the EC in order to make the scope more precise. It is based on a document without a symbol (informal document No. GRPE-49 12), distributed at the forty-ninth GRPE session. The modifications to the current text of the Regulations are marked in **bold** characters.

A reference to the latest version of R.E.3 (TRANS/WP.29/78/Rev.1/Amend.4) shall be added for each of the scopes.

Note: This document is distributed to the Experts on Pollution and Energy only.

A.1. PROPOSAL

REGULATION No. 24 – (Visible pollutants)

Paragraphs 1.1.1. to 1.1.3., amend to read:

"1.1.1. PART I. The emission of visible exhaust pollutants from C.I. engines which are intended for fitting to **power-driven vehicles (vehicles of categories L, M, N, T and mobile machinery)**.

1.1.2. PART II. The installation into **power-driven vehicles** of C.I. engines that have been type approved to Part I of this Regulation.

1.1.3. PART III. The emission of visible exhaust pollutants from a **power-driven vehicle** that is fitted with an engine that has not been separately type approved to Part I of this Regulation."

B.1. JUSTIFICATION

This Regulation shall apply to the mentioned vehicle categories falling under the Vienna Convention definition of "power-driven vehicle", but not to trailers and other vehicles that might be included in the definition "road vehicles".

A.2. PROPOSAL

REGULATION No. 49 – (Emissions of C.I., NG, and P.I. (LPG) engines)

Paragraph 1., amend to read:

"1. SCOPE

1.1. This Regulation applies to **vehicles of categories M and N and their engines, as shown by Table A, with regard to the tests foreseen for these engines in Table B.**

Table A: APPLICABILITY

Vehicle category	Max. mass	Positive-ignition engines			Compression-ignition engines	
		Petrol	NG <u>1/</u>	LPG <u>2/</u>	Diesel	Ethanol
M1	≤ 3.5 t	-	-	-	-	-
	> 3.5 t	-	R49	R49	R49	R49
M2	-	-	R49	R49	R49 or R83 <u>3/</u>	R49
M3	-	-	R49	R49	R49	R49
N1	-	-	R49 or R83	R49 or R83	R49 or R83	R49
N2	-	-	R49	R49	R49 or R83 <u>3/</u>	R49
N3	-	-	R49	R49	R49	R49

1/ Natural Gas.2/ Liquefied Petroleum Gas.

3/ Regulation No. 83 applies only for vehicles with a reference mass $\leq 2,840$ kg as an extension of an approval given for an engine used in vehicles of categories M1 or N1. "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 1/	LPG 2/	Diesel	Ethanol
Gaseous pollutants	-	Yes	Yes	Yes	Yes
Particulates	-	-	-	Yes	-

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:

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

B.2. JUSTIFICATION

Changes in the scope have been introduced several times in successive amendments. The tables clarify the current scope of the Regulation.

A.3. PROPOSAL

REGULATION No. 67 – (Equipment for liquefied petroleum gas)

Paragraph 1., amend to read:

"1. SCOPE

This Regulation applies to:

- 1.1. Part I. Approval of specific equipment of **vehicles of category M and N** using liquefied petroleum gases in their propulsion system;
- 1.2. Part II. Approval of **vehicles of category M and N** fitted with specific equipment for the use of liquefied petroleum gases in **their** propulsion system with regard to the installation of such equipment."

B.3. JUSTIFICATION

This Regulation shall not apply to motor vehicles other than those of categories M and N.

A.4. PROPOSAL

REGULATION No. 83 – (Emissions of M1 and N1 categories of vehicles)

Paragraph 1., amend to read:

"1. SCOPE

This Regulation applies to vehicles of categories M and N as shown by Table A, with regard to the tests foreseen for these vehicles in Table B.

Table A. APPLICABILITY

Vehicle category	Max. mass	Positive-ignition engines including hybrid vehicles			Compression-ignition engines including hybrid vehicles
		Petrol	NG <u>1/</u>	LPG <u>2/</u>	Diesel
M1	≤ 3.5 t	R83	R83	R83	83
	> 3.5 t	R83	-	-	-
M2	-	R83	-	-	R49 or R83 <u>3/</u>
M3	-	R83	-	-	-
N1	-	R83	R49 or R83	R49 or R83	R49 or R83
N2	-	R83	-	-	R49 or R83 <u>3/</u>
N3	-	R83	-	-	-

1/ Natural Gas.

2/ Liquefied Petroleum Gas.

3/ Regulation No. 83 applies only for vehicles with a reference mass ≤ 2,840 kg as an extension of an approval given for an engine used in vehicles of categories M1 or N1.

"R49 or R83" means that manufacturers can obtain type approval according to this Regulation or to Regulation No. 49.

Table B. REQUIREMENTS

Requirements	Positive-ignition engined vehicles of categories M and N including hybrid vehicles			Compression-ignition engined vehicles of categories M ₁ and N ₁ including hybrid vehicles
	petrol fuelled vehicle	bi-fuel vehicle	mono-fuel vehicle	Diesel fuelled vehicles
Gaseous pollutants	Yes (max. mass ≤ 3.5 t)	Yes (test with both fuel types) (max. mass ≤ 3.5 t)	Yes (max. mass ≤ 3.5 t)	Yes (max. mass ≤ 3.5 t)
Particulates	-	-	-	Yes (max. mass ≤ 3.5 t)
Idle emissions	Yes	Yes (test with both fuel types)	Yes	-
Crankcase emissions	Yes	Yes (test only with petrol)	Yes	-
Evaporative emissions	Yes (max. mass ≤ 3.5 t)	Yes (test only with petrol) (max. mass ≤ 3.5 t)	-	-
Durability	Yes (max. mass ≤ 3.5 t)	Yes (test only with petrol) (max. mass ≤ 3.5 t)	Yes (max. mass ≤ 3.5 t)	Yes (max. mass ≤ 3.5 t)
Low temperature emissions	Yes (max. mass ≤ 3.5 t)	Yes (test only with petrol) (max. mass ≤ 3.5 t)	-	-
In-use conformity	Yes (max. mass ≤ 3.5 t)	Yes (max. mass ≤ 3.5 t)	Yes. (max. mass ≤ 3.5 t)	Yes (max. mass ≤ 3.5 t)
On-board diagnostics	Yes (max. mass ≤ 3.5 t)	Yes (max. mass ≤ 3.5 t)	Yes (max. mass ≤ 3.5 t)	Yes (max. mass ≤ 3.5 t)

B.4. JUSTIFICATION

Changes in the scope have been introduced several times in successive amendments. The tables clarify the current scope of the Regulation.

A.5. PROPOSAL

REGULATION No. 110 – (Equipment for compressed natural gas)

Paragraph 1., amend to read:

"1. SCOPE

This Regulation applies to:

- 1.1. Part I. Specific components **for vehicles of category M and N** using compressed natural gas (CNG) in their propulsion system;
- 1.2. Part II. **Vehicles of category M and N** with regard to the installation of specific components, for the use of compressed natural gas (CNG) for propulsion, of an approved type."

B.5. JUSTIFICATION

This Regulation shall not apply to other motor vehicles than vehicles of category M and N.
