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**ECONOMIC COMMISSION FOR EUROPE**

**INLAND TRANSPORT COMMITTEE**

World Forum for Harmonization of Vehicle Regulations

One-hundred-and-fiftieth session  
Geneva, 9-12 March 2010  
Item 4.2.25 of the provisional agenda

**1958 AGREEMENT**

Consideration of draft amendments to existing Regulations

Proposal for Supplement 3 to the 05 series of amendments to Regulation No. 49  
(Emissions of C.I. and P.I. (LPG and NG) engines)

Submitted by the Working Party on Pollution and Energy \*/ \*\*/

The text reproduced below was adopted by the Working Party on Pollution and Energy (GRPE) at its fifty-ninth session in January 2010. It is based on informal document No. GRPE-59-21. As a conclusion of the GRPE informal group meeting on Euro 5 requirements (held in Geneva on 12 January 2010), this document was prepared to update and clarify the amendments to Regulation No. 49 with regard to the Euro 5 emissions level. It has been prepared as a revision of document ECE/TRANS/WP.29/2010/54. The amendments to that document are marked in **grey highlighted** characters. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee (AC.1) for consideration (ECE/TRANS/WP.29/GRPE/59).

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\*/ The UNECE Transport Division has submitted the present document after the official documentation deadline.

\*\*/ In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

Paragraph 1.1., amend to read:

- "1.1. This Regulation shall apply to motor vehicles of categories M<sub>1</sub>, M<sub>2</sub>, N<sub>1</sub> and N<sub>2</sub> with a reference mass exceeding 2,610 kg and to all motor vehicles of categories M<sub>3</sub> and N<sub>3</sub>. 1/

At the request of the manufacturer, the type approval of a completed vehicle given under this Regulation shall be extended to its incomplete vehicle with a reference mass below 2,610 kg. Type approvals shall be extended if the manufacturer can demonstrate that all bodywork combinations expected to be built onto the incomplete vehicle increase the reference mass of the vehicle to above 2,610 kg.

**The following do not need to be approved according to this Regulation:  
engines mounted in vehicles of up to 2,840 kg reference mass to which an approval to Regulation No. 83 has been granted as an extension.**

~~At the request of the manufacturer, the type approval of a vehicle granted under this Regulation shall be extended to its variants and versions with a reference mass above 2,380 kg provided that it also meets the requirements relating to the measurement of greenhouse gas emissions and fuel consumption.~~

Table A: APPLICABILITY

Vehicle category <u>1/</u>	Positive-ignition engines			Compression-ignition engines	
	Petrol	NG <sup>(a)</sup>	LPG <sup>(b)</sup>	Diesel	Ethanol
M <sub>1</sub>	<b>R49 or R83 <sup>(c)</sup></b>	R49 or R83 <sup>(c)</sup>	R49 or R83 <sup>(c)</sup>	R49 or R83 <sup>(c)</sup>	R49 or R83 <sup>(c)</sup>
M <sub>2</sub>	<b>R49 or R83 <sup>(c)</sup></b>	R49 or R83 <sup>(c)</sup>	R49 or R83 <sup>(c)</sup>	R49 or R83 <sup>(c)</sup>	R49 or R83 <sup>(c)</sup>
M <sub>3</sub>	<b>R49</b>	R49	R49	R49	R49
N <sub>1</sub>	<b>R49 or R83 <sup>(c)</sup></b>	R49 or R83 <sup>(c)</sup>	R49 or R83 <sup>(c)</sup>	R49 or R83 <sup>(c)</sup>	R49 or R83 <sup>(c)</sup>
N <sub>2</sub>	<b>R49 or R83 <sup>(c)</sup></b>	R49 or R83 <sup>(c)</sup>	R49 or R83 <sup>(c)</sup>	R49 or R83 <sup>(c)</sup>	R49 or R83 <sup>(c)</sup>
N <sub>3</sub>	<b>R49</b>	R49	R49	R49	R49

<sup>(a)</sup> Natural Gas.

<sup>(b)</sup> Liquefied Petroleum Gas.

<sup>(c)</sup> Regulation No. 83 applies ~~only~~ for vehicles with a reference mass ≤ 2,610 kg **and by extension of an approval for vehicles with a reference mass ≤ 2,840 kg given for a vehicle of categories M<sub>1</sub> or N<sub>1</sub>.** 1/

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

1/ As defined in Annex 7 to the Consolidated Resolution on the Construction of Vehicles (R.E.3), (document TRANS/WP.29/78/Rev.1/Amend.2, as last amended by Amend.4).

Table B: REQUIREMENTS

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

<sup>(a)</sup> Only applicable to stage C in Table 2 of paragraph 5.2.1.

<sup>(b)</sup> Application dates according to paragraph 5.4.2."

Insert new paragraphs 2.1.64. to 2.1.66., to read:

**"2.1.64.    "Reference mass" means the "unladen mass" of the vehicle increased by a uniform figure of 100 kg for test according to Annexes 4a and 8 of Regulation No. 83.**

**2.1.65.    "Unladen mass" means the mass of the vehicle in running order without the uniform mass of the driver of 75 kg, passengers or load, but with the fuel tank 90 per cent full and the usual set of tools and spare wheel on board, where applicable;**

**2.1.66.    "Running order mass" means the mass described in Paragraph 2.6. of Annex 1 to the Regulation No. 83. and for vehicles designed and constructed for the carriage of more than 9 persons (in addition to the driver), the mass of a crew member (75 kg), if there is a crew seat amongst the nine or more seats."**

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