

Informal document No. GRPE-47-15
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agenda item 7.)

**DRAFT PROPOSAL FOR AMENDMENTS
TO REGULATION No. 24**

(APPROVAL OF COMPRESSION IGNITION ENGINES WITH REGARD
TO THE EMISSION OF VISIBLE POLLUTANTS)

Prescriptions concerning type-approval of hybrid vehicles

Transmitted by the expert from France.

The text hereafter was prepared by the GRPE Informal group on Hybrids.

In paragraph 2. Definitions: Insert new paragraph 2.8., to read:

2.8. Hybrid vehicles (HV)

2.8.1 “Hybrid vehicle (HV)” means a vehicle with at least two different energy converters and two different energy storage systems (on vehicle) for the purpose of vehicle propulsion.

2.8.2 “Hybrid electric vehicle (HEV)” means a vehicle that, for the purpose of mechanical propulsion, draws energy from both of the following on-vehicle sources of stored energy/power:

- a consumable fuel
- an electrical energy/power storage device (e.g. : battery, capacitor, flywheel/generator...)

Amend paragraph 12.1 to read (correcting an error):

12.1 “Approval of a vehicle” means the approval of a vehicle type with regard to the installation of type approved engines for the limitation of visible pollutants from the engine;

Insert in paragraph 15.1., a new paragraph to read:

15.1 ... to comply with the provisions of this Regulation.
It shall be possible to inspect the vehicle for roadworthiness by determining its performance in relation to the data collected for type approval as reported in paragraph 11.1.2.2 of annex 2 to this regulation. If this inspection requires a special procedure, this shall be detailed in the service manual (or equivalent media). This special procedure shall not require the use of special equipment other than that provided with the vehicle.

Insert in paragraph 24.1., a new paragraph to read:

24.1 ... to comply with the provisions of this Regulation.
It shall be possible to inspect the vehicle for roadworthiness by determining its performance in relation to the data collected for type-approval as reported in paragraph 11.1.2.2 of annex 2 to this regulation. If this inspection requires a special procedure, this shall be detailed in the service manual (or equivalent media). This special procedure shall not require the use of special equipment other than that provided with the vehicle.

Amend paragraph 24.3.1 as follows

24.3.1 The emission of visible pollutants by the vehicle type submitted for approval shall be measured by the two methods described in annexes 4 and 5 to this Regulation, relating respectively to tests at steady speeds and to tests under free acceleration. If performing these tests on a hybrid electric vehicle requires a special procedure, this shall be detailed in the service manual (or equivalent media). This special procedure shall not require the use of special equipment other than that provided with the vehicle.