

## **Proposal for amendments to the 06 and 07 series of amendments to UN Regulation No. 83 (Emissions of M<sub>1</sub> and N<sub>1</sub> vehicles)**

The text reproduced below was prepared by the expert from CITA proposing to amend the 06 and 07 series of amendments to UN Regulation No. 83, improving the design of vehicles to make tampering of emissions systems more difficult and to facilitate its detection.

### **I. Proposal**

*Insert new paragraphs 5.1.7. to 5.1.10.*

- “5.1.7 Vehicles shall be designed, constructed and assembled in such way that tampering is reasonably avoided and the detection of tampering is facilitated.
- 5.1.8 The exhaust pipe or pipes of vehicles shall be conceived in such a way that a measurement probe of 30 mm of diameter is introduced a minimal depth of 100 mm, having the point of entrance of gases in the probe at least 10 mm away from any part of the exhaust pipe.
- 5.1.9 In case of vehicles fitted with a reagent tank for the functioning of the SCR system, it shall be possible to take samples of the reagent and to visually check the filling level of the tank without using any tool or key, with the only exception of those keys provided for the normal use of the vehicle.
- 5.1.10 Vehicles shall have simple a method, not requiring any external tool or device, to switch on/off the internal combustion engine in the standard mode of operation to allow activities of maintenance, market surveillance, in-use conformity, periodical inspection and roadside inspection. That method shall be described in the vehicles owners’ information documents.”

*Annex 1, insert new paragraphs 3.2.12.2.1.11.11 and 3.2.12.2.1.11.12:*

“3.2.12.2.1.11.11 Drawing of the location of the reagent tank:

3.2.12.2.1.11.12 Description to the access to the reagent tank:”

*Annex 1, insert a new paragraph 3.4.3.2:*

“3.4.3.2 Method to switch on/off the internal combustion engine”.

### **II. Justification**

This document includes the first set of proposals to improve the design of vehicles to make tampering of emissions systems more difficult and to facilitate its detection.

The rationale behind this proposal is the following:

- Tampering is a behavioural issue with a technical application
- Tampering is, by definition, a modification of the systems that alters their performance. Therefore, this proposal tackles two main concepts:
  - The suitability to detect something has been modified
  - The detection of inappropriate vehicle performance
- Tampering of systems occurs when the perceived benefit is higher than the cost/risk of tampering

- Fighting non-appropriate modifications involves all stakeholders, those related to the design of vehicles too

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