

Proposal for amendments to the 07 series of amendments to UN Regulation No. 83 (Emissions of M1 and N1 vehicles)

I. Proposal

Annex 11, paragraphs 2.14, amend to read:

"2.14. "Permanent emission default mode" refers to a case where the engine management controller permanently switches to a setting that does not require an input from a failed component or system where such a failed component or system would result in an increase in emissions from the vehicle to a level above the limits given in paragraph 3.3.2. of this annex.

2.14.1. Permanent in this context means that the default mode is not recoverable, i.e. the diagnostic or control strategy that caused the emission default mode cannot run in the next driving cycle and cannot confirm that the conditions that caused the emission default mode is present anymore."

Annex 11, add a new paragraph 2.21.:

"2.21. "Limp-home routines" means any default mode other than emission default mode."

Annex 11, paragraph 3.5.1, amend to read:

"3.5.1. The OBD system shall incorporate a malfunction indicator readily perceivable to the vehicle operator. The MI shall not be used for any other purpose except to indicate emergency start-up, **permanent emission default modes** or limp-home routines to the driver. The MI shall be visible in all reasonable lighting conditions. When activated, it shall display a symbol in conformity with ISO 2575. A vehicle shall not be equipped with more than one general purpose MI for emission-related problems. Separate specific purpose tell tales (e. g. brake system, fasten seat belt, oil pressure, etc.) are permitted. The use of red colour for an MI is prohibited."

II. Justification

1. This proposal defines the terms "limp-home routine" and clarifies "permanent emission default mode" in UN Regulation No. 83.
2. The term "permanent" is not further specified and leaves room for different interpretations. A more precise definition of the term "permanent" in the context of emission default modes would be appreciated to make the Regulation more comprehensive.
3. Activating the MI is only necessary in case the emissions exceed the applicable OBD

thresholds due to the activated “permanent emission default mode”. (Paragraphs 3.5.2 and 2.14)

4. “Permanent” can be considered as not recoverable in the next driving cycle, i.e. the diagnostic or control strategy that caused the emission default mode cannot run in the next driving cycle again and cannot confirm that the condition that caused the emission default mode is not present anymore. A short or a temporary default mode, e.g. for component protection, is recoverable and therefore not seen as permanent.

5. “Limp-home routines” means any default mode other than emission default mode. For example, a limp-home routine could be a limitation of vehicle speed or engine power due to safety related failures within the stability control.
