Proposal for amendments to GRPE working document ECE/TRANS/WP.29/GRPE/2014/12

The purpose of this proposal is to add the text omitted during the preparation of the working document ECE/TRANS/WP.29/GRPE/2014/12, while transposing the latest decisions of the EU regarding OBD threshold limits and deleting the provisions related to reagent consumption monitoring. The modifications to original document are marked in bold for new or strikethrough for deleted characters.

I. Proposal

Annex 9B, Appendix 3, item 3, to read:

"Selective Catalytic Reduction (SCR) monitoring

For the purpose of this item, SCR means selective catalytic reduction or other lean NO_x catalyst device. The OBD system shall monitor the following elements of the SCR system on engines so-equipped for proper operation:

(a) Active/intrusive reagent injection system: the system's ability to regulate reagent delivery properly, whether delivered via an in-exhaust injection or an in-cylinder injection - performance monitoring;

~~(b) Active/intrusive reagent: the proper consumption of the reagent if a reagent other than fuel is used (e.g. urea) - performance monitoring;~~

~~(c)~~ **(b)** Active/intrusive reagent: to the extent feasible the quality of the reagent if a reagent other than fuel is used (e.g. urea) - performance monitoring;

~~(d)~~ **(c)** SCR catalyst conversion efficiency: the catalyst's SCR ability to convert NO_x emission threshold monitoring."

Annex 15, amend paragraph 4.2.2., to read:

" The operability restriction applicable to dual-fuel vehicles when they operate in service mode is the one activated by the "severe inducement system" specified in Annex 11 **or, in the special case described in section 4.2.2.3., the power limitation described in that section.**"

Annex 15, insert new paragraphs 4.2.2.2. to 4.2.2.3.3., to read:

"**4.2.2.2. De-activation of the operability restriction**

In case of an empty gas tank, the operability restriction in dual-fuel mode due to a lack of gaseous fuel, shall be de-activated as soon as the gas tank is refilled above the critical level.

4.2.2.3. Repair and maintenance of LNG Type A dual-fuel engines and vehicles

In the case of LNG Type A dual-fuel engines and vehicles, the manufacturer may, instead of limiting the vehicle speed at 20 km/h, opt for limiting the power of the engine to 20% of the declared maximum power in dual-fuel mode, and this at any engine speed, when the service mode is activated during a repair or maintenance operation.

4.2.2.3.1. The power limitation scheme may only be activated if the system concludes to an empty gas tank not later than 5 minutes after engine cranking, the engine being at idle.

4.2.2.3.2. The power limitation scheme shall not be activated when the system concluded to an empty gas tank in a previous driving cycle and the gas tank has not been refilled.

4.2.2.3.3. The manufacturer shall demonstrate at type-approval that the power limitation scheme can only be activated during a repair or maintenance operation."

II. Justification

(See also the original justification in ECE/TRANS/WP.29/GRPE/2014/12)

1. During some repair operations of LNG vehicles, it is necessary to drain out all the gas contained in the tank system. Due to the very poor density of LNG filling stations in some areas, the current requirements forces a Type A dual-fuel vehicle that has no diesel mode to be driven at 20km/h during hours and accordingly generate traffic issues.

2. The proposal is to introduce, in that specific, case an alternative requirement that would limit the available power so that the vehicle could not operate commercially, while it would be able to drive at an acceptable speed.