|  |  |
| --- | --- |
| Submitted by expert from Germany  | Informal document GRSG-110-27(110th GRSG, 26-29 May 2016agenda item 12) |

 Proposal for amendments to Regulation No. 110

Submitted by the expert from Germany

The text reproduced below was prepared by the expert from Germany. It amends document ECE/TRANS/WP.29/GRSG/2015/36 with regard to the permitted amount of open valves when heating the engine before use. The modifications to the current text of document ECE/TRANS/WP.29/GRSG/2015/36 are marked in bold for new characters and strikethrough for deleted characters.

I. Proposal

*Part II, paragraphs 18.5. to 18.5.1.4.,* amend to read:

"18.5. Accessories fitted to the CNG container(s)

18.5.1. Automatic cylinder valve

18.5.1.1. An automatic cylinder valve shall be installed directly on each CNG container.

18.5.1.2. The automatic cylinder valve shall be operated such that the fuel supply is cut off when the engine is switched off, irrespective of the position of the ignition switch, and shall remain closed while the engine in not running. A delay of 2 seconds is permitted for diagnostic.

18.5.1.3. Notwithstanding the provisions of paragraph 18.5.1.2.

 (a) the automatic cylinder valve may stay in an open position during commanded stop phases, and

 (b) in the case **where** a fire alarm system is installed in the **compartment** **where a** ~~autonomous~~ CNG **combustion** heater **is located** ~~compartment~~, ~~one~~ **the** automatic cylinder valve**(s)** may be opened **by an electronic control unit** ~~for a maximum period of one hour~~ for the purpose of permitting its operation to warm the engine coolant.

18.5.1.4. If the automatic cylinder valve is closed during commanded stop phases, the valve shall comply with paragraph 2.2.4. of Annex 4A."

II. Justification

ECE/TRANS/WP.29/GRSG/2015/36 introduces requirements for the operation of a CNG heater when the vehicle is stationary and before starting the engine. A limitation of the amount of valves in order to operate the CNG combustion heater will require unnecessary technical changes while not providing a serious benefit. The proposal therefore deletes the limitation and introduces furthermore some clarifications.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_