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agenda item 4.4.)

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 110

(Specific components for CNG)

Transmitted by the expert from Italy

Note: The text reproduced below was prepared by the expert from Italy in order to amend the Regulation. It is based on the text of a document distributed without a symbol (informal document No. 11) during the forty-fourth session of GRPE (TRANS/WP.29/GRPE/44, para. 41). The suggested amendments to the Regulation are marked in **bold** characters.

Note: This document is distributed to the Experts on Pollution and Energy only.

A. PROPOSAL

Annex 3, Appendix A,

Paragraph A.24., amend to read:

"A.24. Pressure relief device requirements

Pressure relief device specified by the manufacturer shall be shown to be compatible with the service conditions listed in paragraph 4. of annex 3 and through the following qualification tests:

- (a) One specimen shall be held at a controlled temperature of not less than **95 °C** and a pressure not less than test pressure (30 MPa) for 24 hours. At the end of this test ..."

Add a new paragraph A.28., to read:

"A.28. Manual valve device requirements

One specimen shall be submitted to a fatigue test at a pressure cycling rate not to exceed 4 cycles per minute as follows:

- (i) **held at 20 °C while pressured for 2000 cycles between 2 MPa and 26 MPa."**

Annex 3, Appendix D, amend to read:

"....

Marks stamped on shoulder or on labels of the cyclinder are:

- (a) "CNG only":
 - (b) "DO NOT USE AFTER":
 - (a) "Manufacturer's mark":
 - (d) Serial **and** part number:
 - (e) Working pressure in MPa:
-"

Annex 4A,

Add a new paragraph 6., to read:

- "6. The manual valve**
- 6.1. The manual valve device in Class 0 shall be designed to withstand a pressure of 1.5 times the working pressure.**
- 6.2. The manual valve device in Class 0 shall be designed to operate at a temperature from –40 °C to 85 °C."**

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B. JUSTIFICATION

Re. Annex 3, Appendix A, paragraph A.24.:

The maximum ambient temperature at normal conditions, without fire, is normally considered 90°C in automotive designing for the components on board. Moreover, since PRDs are designed to operate at the temperature of 110 ± 10 °C, they could melt at 100 °C.

Re. Annex 3, Appendix A, paragraph A.28.:

See justification to the previous amendment

Re. Annex 3, Appendix D:

This editorial amendment is required for consistency reasons with the mandatory information of the provision of marking according to annex 3, paragraph 11.1. (a) ... (iv) Cylinder identification (applicable part number and a serial number unique for every cylinder)

Re. Annex 4A, paragraph 6.:

In the original text there was a lack of prescriptions and the experience revealed the need to provide for them.
