

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 67

This document has been prepared in order to insert a new paragraph containing the endurance test for pressure regulator and vaporizer. It is based on the proposal presented by India. (see Informal Document GRPE-50-8 and/or ECE/TRANS/WP29/GRPE/2007/2).

PROPOSAL

Annex 15

Insert a new paragraph 9.6., to read:

"9.6. Endurance test for pressure regulator and vaporizer

The regulator shall be able to withstand 50.000 cycles without any failure when tested according to the following procedure.

- a) Recycle the regulator for 95% of the total number of cycles at room temperature and at the classification pressure. Each cycle shall consist of flow until stable outlet pressure has been obtained, after which the gas flow shall be shut off by a downstream valve within 1 s, until the downstream lock-up pressure has stabilized. Stabilized outlet pressures are defined as set pressure $\pm 15\%$ for at least 5 s.
- b) Cycle the inlet pressure of the regulator for 1 % of the total number of cycles at room temperature from 100% to 50% of the classification pressure. The duration of each cycle shall be no less than 10 s.
- c) Repeat the cycling procedure listed in para. a) at 120 °C at the classification pressure for 1 % of the total number of cycles.
- d) Repeat the cycling procedure listed in para. b) at 120 °C at the classification pressure for 1 % of the total number of cycles.
- e) Repeat the cycling procedure listed in para. a) at - 20 °C and 50% of classification pressure for 1% of the total number of cycles.
- f) Repeat the cycling procedure listed in para. b) at - 20 °C and 50% of classification pressure for 1 % of the total number of cycles.
- g) At the completion of all tests indicated in paragraphs a), b), c), d), e) and f) the regulator shall be leak proof as described under external leakage test under paragraph 5, at the temperatures of - 20°C, at the room temperature and at the temperature of + 120°C.

Justification

With reference to Informal Document n° 10 presented by Indian delegation during the 52° GRPE meeting, proposing to amend the number of cycles of endurance test from 6.000 to 50.000 for pressure regulator and vaporizer, it is deemed necessary to also define an endurance test procedure.

Regulation No.67 does not clearly specify test procedure for endurance test on pressure regulator and vaporizer, although Annex 6, para. 6 makes a reference to this test. For this reason, it is not possible to specify the number of test cycles, without specifying the test method. In this respect it is proposed to supplement the proposal from Indian delegation with the endurance test procedure.
