Justification for proposed amendment (via informal document No. GRPE-50-8) to ECE Regulation No. 67 (LPG) (Endurance Requirements for Pressure Regulator)

Ref. Documents: Informal document No. GRPE-50-8 (Regulation No. 67), ECE/TRANS/WP.29/GRPE/2006/11 (Regulation No. 110), ECE/TRANS/WP.29/GRPE/51 (Report of the 51st Session of GRPE)

As per the discussions held during 51st session of GRPE, the experts from Italy, Netherlands and AEGPL had raised their studies reservations on the India's proposal for 50000 cycles for durability test for pressure regulator which was based on the reference from ISO 15500 part. No. 9 (Clause 6.4) applicable for CNG pressure regulator.

Subsequently India had approached ISO through Bureau of Indian Standards (the national coordinator with ISO) as to how the ISO had arrived at the figure of 50000 cycles for the pressure regulator of CNG.

The reproduction of communication between India and ISO on the durability requirements for pressure regulator is as below.

"Subject: Comments on ISO 15000 Road vehicles -- Compressed natural gas (CNG) fuel system components -- Part 9: Pressure regulator

Answer of Mr Bassi ISO/TC22SC25 Chairman:

"The number of working cycles for the pressure regulator, can be evaluated considering a vehicle running for 200 days/year, with the engine starte/stopped 10 times each day, for 20 years. The total number of engine starts/stops will be: $200 \times 10 \times 20 = 40.000$ cycles, approximated with 50.000 duty cycles in the standard."

Since LPG Pressure regulator also has similar operation to CNG pressure regulator, therefore for the LPG pressure regulator, 50000 number of endurance cycles are proposed on similar lines to recommendation in ISO 15500 applicable for CNG pressure regulator instead of 6000 cycles as mentioned in ECE Regulation No. 67.
