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**ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on Lighting and Light-Signalling (GRE)  
(Fifty-first session, 15-19 September 2003,  
agenda item 4.1.)

**PROPOSAL FOR DRAFT AMENDMENTS TO  
CANDIDATE DRAFT GLOBAL TECHNICAL REGULATION (gtr) 48H**

(Uniform provisions concerning vehicles with regard to  
the installation of lighting and light-signalling devices)

Transmitted by the expert from Germany

Note: The text reproduced below was prepared by the expert from Germany, proposing new provisions in order to clarify the discrepancies between electrical supply conditions during the type approval test and the electrical supply conditions in the vehicle in service. The amendment is based on a revised text of a document without a symbol (informal document No. 22), distributed during the fiftieth GRE session (see report TRANS/WP.29/GRE/50, para. 21).

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Note: This document is distributed to the Experts on Lighting and Light-Signalling only.

**A. PROPOSAL**

Add a new paragraph 5.28., to read:

**"5.28. The voltage at the terminals of the lamp installed in the vehicle shall be  $13.0V \pm 0.5V$ , measured at the vehicle under normal condition of use.**

**In all other cases lamps (functions) shall be operated in the vehicle under the same electrical conditions as they have been approved."**

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**B. JUSTIFICATION**

1. An amendment to ECE Regulation No. 7 has been adopted to allow a dedicated voltage instead of the reference luminous flux for measurement of the luminous intensity during type approval.

This new measuring procedure requires an amendment to this regulation to avoid additional discrepancies between type approval conditions and operating conditions in the vehicle.

2. In recent years the electrical power consumption of vehicles is increasing more and more. Therefore the 42 Volt network is in development. But also in the conventional vehicle network the voltage is also increasing due to the increasing power consumption, which was under discussion in several former meetings.

Certain vehicle manufacturers installed therefore electronic control units into the vehicles to control the electrical power consumption or to limit the voltage level, e.g. to increase the lifetime of filament lamps especially but not only in headlamps.

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