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PROPOSAL TO DEVELOP A GLOBAL TECHNICAL REGULATION
CONCERNING VEHICLES WITH REGARD TO THE INSTALLATION
OF LIGHTING AND LIGHT-SIGNALLING DEVICES

Transmitted by the representative of Canada

Note : This document contains a proposal for a global technical regulation (gtr), regarding installation of lighting and light-signalling devices, to be developed under the 1998 Agreement concerning the establishing of global technical regulations for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles. It is being submitted by Canada to WP.29 and AC.3 for consideration.

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<http://www.unece.org/trans/main/welcwp29.htm>

Objective of the proposal

Each Contracting Party to the 1998 Agreement has regulations with regard to road vehicle lighting and light signalling devices. All prescribe photometric performance and other technical descriptions of individual lighting or light signalling devices. Their purpose is to enhance the traffic safety by providing sufficient illumination of roadway, and by enhancing the conspicuity of motor vehicles in both daylight and in darkness or other conditions of reduced visibility. Photometry requirements of a specific device are often dependent on the location of this device on a vehicle. Many developments have occurred in the area of lighting, in the past 2 decades. A future Global Technical Regulation on the installation of lighting and light signalling could take into account best practices and facilitate development and improvement of harmonized regulations in the area of motor vehicle lighting.

A harmonized location of light signalling and marking devices could also benefit the safety of the travelling public worldwide. The world-travellers are faced with diverse vehicle light signalling and marking systems, hence, different visual information from the road environment. While travelling in different countries, those drivers need time to adjust to the local conditions. During this adaptation time these vehicle operators may be confused and distracted by appearance of unknown markings and signalling and/or lack of familiar markings and signalling to which they are accustomed.

Further, to be universally meaningful the source of a visual information related to the presence, identification and/or behaviour of a vehicle on the road must be located on a vehicle in the area expected by the road users for the type of message presented. The types of lighting and light signalling devices, also, should convey a simple, understandable message.

A harmonized regulation on installation of lighting and light-signalling devices would also allow manufacturers to reduce cost of vehicle design and production. The proposed gtr affects openings in vehicle's body and electrical harness supplying energy to lighting and light-signalling devices fitted into those openings. Unless markets would demand style differentiation between countries, it would be possible for a manufacturer to design and stamp or mould one set of body panels for a vehicle model if a harmonized gtr existed. Finally the consumer would benefit by having better choice of vehicle lighting built to better, globally recognized regulations providing a better level of safety and at lower price.

In summary, and notwithstanding the above-mentioned advantages for the manufacturers and the travelling public, it is important to move toward presenting drivers with simple, and quickly understandable message, and this first gtr developed by GRE, is intended to do that. In addition, since development of any other gtr related to lighting and light signalling devices would be affected by the location, geometrical visibility and operation requirements therein, this gtr should take precedent over any other developed by the Working Party on lighting and light signalling devices.

Description of the proposed regulation

The proposed global technical regulation would apply to all on-road vehicles except motorcycles. It would specify requirements for the colour, location, geometric visibility and operation (electric

connection) of vehicle lighting and light signalling devices. It would be designed to ensure the uniform visibility and functioning of lighting and light signalling and marking devices, in order to reduce the safety hazards caused by confusion and diversion of the tourist driver's attention from the driving task and by mistakes in signal comprehension.

The proposed global technical regulation will be based on existing national regulations of contracting parties as well as international voluntary standards listed below. Acceptance must be based on achieving the highest collective level of safety. The gtr will contain provisions acceptable to all concerned.

Elements, which cannot be agreed upon by the Working Party on lighting and light signalling devices will be identified and dealt with in accordance with protocol established by AC.3 and WP.29.

The proposed gtr will be drafted in the format adopted by WP.29.

Existing regulations

At present time there are no regulations concerning lighting and light-signalling devices installation in the Compendium of Candidates. The following regulations and voluntary standards would be considered during development of the global technical regulation regarding installation of lighting and light signalling devices on vehicles:

- Europe: ECE Regulation No. 48 – Uniform provisions concerning the approval of vehicles with regard to the installation of lighting and light-signalling devices
EU Directive 97/28/EC, installation of lighting and light-signalling devices (in effect, the same as ECE Regulation No. 48)
- USA: U.S. Code of Federal Regulations (CFR) Title 49: Transportation;
Part 571.108: Lamps, reflective devices and associated equipment.
- Canada: Canadian Motor Vehicle Safety Regulation No. 108 – Lighting system and retro-reflective devices.
- Japan: Japanese Automobile Standards Internationalization Center (JASIC)
Automobile type approval handbook for Japanese certification – Technical edition II
- Australia: Australian Design Rule (ADR) 13 – Installation of lighting and light-signalling devices on other than L-group vehicles.

International Voluntary Standards

- ISO 303:2001 “Road vehicles: Installation of lighting and light signalling devices for motor vehicles and their trailers”
- SAE J2442:SEP2000 “Harmonized provisions for installation of lamps and retro-reflective devices on road vehicles except motorcycles”
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