Proposal for Supplement 10 to the 04 series of amendments to Regulation No. 48 (Installation of lighting and light-signalling devices)

Submitted by the Working Party on Lighting and Light-Signalling

The text reproduced below was adopted by the Working Party on Lighting and Light-Signalling (GRE) at its sixty-seventh session to correct a conflict between Regulation No. 48 and the device Regulations introduced by Supplement 8 to the 04 Series, to clarify the "fixed position of a movable component", to introduce into Regulation No. 48 a definition of Gonio(photos)meter and to clearly define the conditions under which voltage control gear may be used in conjunction with filament light sources. It is based on ECE/TRANS/WP.29/GRE/2012/6, not amended, ECE/TRANS/WP.29/GRE/2012/14, amended as reproduced in Annex VI to the report, GRE-67-38, as amended and reproduced in Annex VI to the report, GRE-67-26, as amended and reproduced in Annex VI to the report, ECE/TRANS/WP.29/GRE/2012/8, as amended in para. 28 of the report and ECE/TRANS/WP.29/GRE/2012/12, not amended (see ECE/TRANS/WP.29/GRE/67, paras. 7, 12, 13, 14, 28 and 32). It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee AC.1 for consideration.

* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106, ECE/TRANS/2010/8, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.
Insert a new paragraph 2.23.1., to read

"2.23.1. "Fixed (open) position of a movable component" means the stable or natural rest position(s) of use specified by the vehicle manufacturer, whether locked or not;"

Add a new paragraph 2.34., to read:

"2.34. "Gonio(photo)meter system (If not otherwise specified in a particular Regulation)" means a system used for the photometric measurements specified by the angular coordinates in degrees on a sphere with a vertical polar axis according to CIE publication No. 70, Vienna 1987, i.e. corresponding to a goniophoto)meter system with a horizontal ("elevation") axis fixed to the ground and a second, moveable ("rotation") axis perpendicular to the fixed horizontal axis (see Annex 14 to this Regulation).

Note: The above mentioned CIE publication specifies a procedure to correct the angular coordinates in the case where an alternative goniophoto)meter system is used."

Paragraph 5.29., amend to read:

"5.29. A LED module does not need to be replaceable, if so stated in the communication sheet of the component type approval."

Paragraph 5.21., amend to read:

"5.21. The apparent surface … from the "normal position of use".

Fixed position of a movable component means the stable or natural rest position(s) of the movable component specified by the vehicle manufacturer, whether locked or not.

If the above requirement is not practicable:

(a) Part of Supplement 10 to the 04 series of amendments to UN Regulation No. 48. Amendments to GRE-67-38 (see para. 13 of the report).

Paragraph 5.27., amend to read:

"5.27. For vehicles of M and N categories, the applicant shall demonstrate to the Technical Service responsible for type approval testing that the electric power supply conditions for the devices indicated in 2.7.9., 2.7.10., 2.7.12., 2.7.14 and 2.7.15 above comply, when the electrical system of the vehicle is in a constant voltage operating condition, representative for the relevant category of powered vehicle as specified by the applicant, with the following provisions:

5.27.1. The voltage supplied at the terminals of devices which, according to their type approval documentation, have been tested by the application of a special power supply/electronic light source control gear, or in a secondary operating mode or at a voltage requested by the applicant, shall not exceed the voltage specified for the relevant devices or functions as they have been approved.

5.27.2. In all cases of electric power supply conditions not covered by paragraph 5.27.1., the voltage at the terminals of the device(s) or function(s) shall not exceed 6.75V (6 Volt-Systems), 13.5V (12 Volt-Systems) or 28V (24 Volt-Systems) by more than 3 per cent. The means of controlling the maximum voltage at the terminals of the device may, for convenience, be located within the body of the device."
5.27.3 The provisions of paragraphs 5.27.1. and 5.27.2. shall not apply to devices which include an electronic light source control gear or a variable intensity control being part of the device.

5.27.4. A report shall be attached to the approval documentation describing the methods used to demonstrate compliance and the results obtained."

*Paragraphs 6.21.4.1.2., amend to read:

6.21.4.1.2. The cumulative horizontal length of the conspicuity marking elements, as mounted on the vehicle, shall equate to at least 70 per cent of the overall width of the vehicle, excluding any horizontal overlap of individual elements.

*Paragraphs 6.21.4.1.3. shall be deleted

*Paragraphs 6.21.4.2.to 6.21.4.2.2., amend to read:

"6.21.4.2. Length

6.21.4.2.1. The conspicuity marking shall be as close as practicable to the ends of the vehicle and reach to within 600 mm of each end of the vehicle (or cab in the case of tractor units for semi-trailers).

6.21.4.2.1.1. For motor vehicles, each end of the vehicle, or in the case of tractors for semi-trailers each end of the cab;

However, an alternative marking mode within 2400 mm from the front end of the motor vehicle is allowed where a series of retro-reflectors of Class IVA of Regulation No. 3 or Class C of Regulation No. 104 are mounted followed by the required conspicuity marking as follows:

(a) Retro-reflector size minimum 25 cm²;
(b) One retro-reflector mounted not more than 600 mm from the front end of the vehicle;
(c) Additional retro-reflectors spaced not more than 600 mm apart;
(d) The distance between the last retro-reflector and the start of the conspicuity marking shall not exceed 600 mm;

6.21.4.2.1.2. For trailers, each end of the vehicle (excluding the drawbar).

6.21.4.2.2. The cumulative horizontal length of the conspicuity marking elements, as mounted on the vehicle, excluding any horizontal overlap of individual elements, shall equate to at least 70 per cent of:

6.21.4.2.2.1. For motor vehicles, length of vehicle excluding the cab, or in the case of tractors for semi-trailers, if fitted, the length of the cab; however, when using the alternative marking mode per paragraph 6.21.4.2.1.1., the distance beginning within 2,400 mm from the front end of vehicle to its rear end.
Paragraph 6.21.4.2.2.2., amend to read:

"6.21.4.2.2.2. For trailers, the overall length of the vehicle (excluding the drawbar).

Paragraph 6.21.5., amend to read:

"6.21.5. Visibility

The conspicuity marking shall be considered visible, if at least 70 per cent of the illuminating surface of the installed marking is visible when viewed by an observer positioned at any point within the observation planes defined below:"

Paragraph 6.6.8., amend to read:

"6.6.8. Tell-tale

Flashing circuit-closed tell-tale mandatory."

Annex 1, paragraph 10.5., amend to read:

"10.5. Comments regarding the extent of coverage of the conspicuity marking if it is less than the minimum value of 70 per cent required by paragraphs 6.21.4.1.2. and 6.21.4.2.2. of the Regulation."
Add a new Annex 15, to read:

"Annex 15

Gonio(photo)meter system used for the photometric measurements as defined in paragraph 2.34. of this Regulation: