

**Economic and Social Council**Distr.: General
9 August 2016

Original: English

Economic Commission for Europe**Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****Working Party on Lighting and Light-Signalling****Seventy-sixth session**

Geneva, 25–28 October 2016

Items 7 (a) and (d) of the provisional agenda

Other Regulations:**Regulation No. 6 (Direction indicators)****Regulation No. 50 (Position, stop, direction indicator lamps for mopeds and motorcycles)****Proposal for Supplement 27 to the 01 series of amendments to Regulation No. 6 (Direction indicators) and Supplement 19 to the original series of amendments to Regulation No. 50 (Position, stop, direction indicator lamps for mopeds and motorcycles)****Submitted by the Task Force on Sequential Activation***

The text reproduced below was prepared by the experts of the Task Force on Sequential Activation (TF-SA) to clarify the requirements for direction indicators with sequential activation. The modifications to the existing text of the Regulations are marked in bold for new or strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2014–2018 (ECE/TRANS/240, para. 105 and ECE/TRANS/2014/26, 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.



I. Proposal

A. Proposal for Supplement 27 to the 01 series of amendments to Regulation No. 6 (Direction indicators)

Paragraph 1.3., amend to read:

"1.3. "Direction indicators of different types" means lamps which differ in such essential respects as:

- (a) The trade name or mark;
- (b) The characteristics of the optical system (levels of intensity, light distribution angles, category of light source, light source module, etc.);
- (c) The category of direction indicator lamps;
- (d) The variable intensity control, if any;
- (e) The sequential activation of light sources, if any.

Nevertheless, direction indicators capable of being activated in different modes (sequential or not) without any modification of the optical characteristics of the lamp do not constitute "Direction indicators of different types".

A change of the colour of the light source or the colour of any filter does not constitute a change of type."

Paragraph 5.6., amend to read:

"5.6. For direction indicator lamps of categories 1, 1a, 1b, 2a or 2b the flash may be produced by sequential activation of their light sources if the following conditions are met:

- (a) Each light source, after its activation, shall remain lit until the end of the ON cycle;
- (b) The sequence of activation of the light sources shall **produce a signal which** proceeds in a uniform progressive manner from inboard towards the outboard edge of the apparent surface;
- (c) It shall be ~~one~~ a continuous **signal line not producing vertical oscillations** ~~with no repeating alternation in the vertical direction~~ (e.g. no waves). **The signal is considered continuous if the distance between two adjacent/tangential distinct parts does not exceed [xx] mm when measured perpendicularly to the reference axis;**
- (d) The variation shall finish no more than 200 ms after the beginning of the ON cycle;
- (e) ~~For the~~ **The orthogonal projection of the apparent surface of the direction indicator** in the direction of the axis of reference ~~of a rectangle, circumscribing the apparent surface of the direction indicator shall have~~ **shall be circumscribed by a rectangle on a plane normal to the axis of reference and having** its longer sides parallel to the H-plane.; †The ratio of the horizontal to the vertical sides shall not be less than 1.7.

Compliance to the conditions mentioned above shall be verified in flashing mode."

B. Proposal for Supplement 19 to the original series of amendments to Regulation No. 50 (Position, stop, direction indicator lamps for mopeds and motorcycles)

Paragraph 6.8., amend to read:

"6.8. For direction indicator lamps of categories 11, 11a, 11b, 11c or 12 the flash may be produced by sequential activation of their light sources if the following conditions are met:

- (a) Each light source, after its activation, shall remain lit until the end of the ON cycle;
- (b) The sequence of activation of the light sources shall **produce a signal which** proceeds in a uniform progressive manner from inboard towards the outboard edge of the apparent surface;
- (c) It shall be ~~one~~**a continuous signal line not producing vertical oscillations** without repeat alternation in the vertical direction (e.g. no waves). **The signal is considered continuous if the distance between two adjacent/tangential distinct parts does not exceed [xx] mm when measured perpendicularly to the reference axis;**
- (d) The variation shall finish no more than 200 ms after the beginning of the ON cycle;
- (e) ~~For the~~ **The orthogonal projection of the apparent surface of the direction indicator** in the direction of the axis of reference ~~of a rectangle, circumscribing the apparent surface of the direction indicator shall have~~ **shall be circumscribed by a rectangle on a plane normal to the axis of reference and having** its longer sides parallel to the H-plane.; ~~†The ratio of the horizontal to the vertical sides shall not be less than 1.7.~~

Compliance to the conditions mentioned above shall be verified in flashing mode."

II. Justification

1. At the seventy-fifth session of GRE, informal document GRE-75-10 by Germany highlighted interpretation problems in the sequential activation requirements for direction indicators. Germany proposed to establish a task force (TF-SA), which should clarify interpretation of the "one continuous line" requirement in paragraph 5.6.(c) of Regulation No. 6. This working document is a result of the TF-SA work.

2. The addition in paragraph 1.3. of Regulation No. 6 clarifies the type definition and reduces the need for dividing the sequential direction indicators into different types.

3. The text of sub-paragraph 5.6. (b) of Regulation No. 6 is changed to be more technology neutral. It is not essential how the light sources are activated, if the signal looks like sequential. For example, the new text works better with light guide solutions.

4. The amendment of sub-paragraph 5.6. (c) of Regulation No. 6 clarifies what kind of vertical movement is not allowed in the sequential direction indicators. TF-SA proposes a

new term "vertical oscillations" instead of the current wording "repeating alternation in the vertical direction". The meaning is that not more than one change of direction upwards or downwards along the vertical axis is possible.

5. The "continuous signal" is also defined in sub-paragraph 5.6. (c) of Regulation No. 6. The allowed distance between adjacent or tangential distinct parts has yet to be defined. TF-SA could not find a consensus about the distance (in mm) before the deadline for submitting official working documents to the seventy-sixth session of GRE. Thus, the value is still marked between square brackets, leaving the final decision to GRE. Before the seventy-sixth session of GRE, TF-SA experts are going to investigate what the suitable value would be. The idea of TF-SA is that the sequential direction indicator should produce a visually clear and continuous signal when viewed by an observer from a 10 m distance.

6. The same amendments as in paragraph 5.6. of the Regulation No. 6 are also proposed to paragraph 6.8. of Regulation No. 50 for L-category vehicles. Unlike paragraph 1.3. of Regulation No. 6, paragraph 2.2. of Regulation No. 50 does not define the sequential activation as a type differentiation criterion. Therefore, amendments to paragraph 2.2. of Regulation No. 50 are not necessary.
