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

Geneva, 23-26 October 2018

Item 5 of the provisional agenda

**UN Regulations Nos. 37 (Filament lamps), 99 (Gas discharge light sources), 128 (Light emitting diodes light sources) and the Consolidated Resolution on the common specification of light source categories****Proposal for a collective amendment to UN Regulations Nos. 48, 53, 74 and 86****Submitted by the Task Force on Substitutes and Retrofits (TF SR)\***

The text reproduced below was prepared by the Task Force on Substitutes/Retrofits (TF S/R) as a revision of the proposal prepared by the expert from the International Automotive Lighting and Light Signalling Expert Group (GTB) to introduce requirements for light emitting diode (LED) substitute light sources into UN Regulations Nos. 48, 53, 74 and 86. It is based on ECE/TRANS/WP.29/GRE/2017/22. The content of ECE/TRANS/WP.29/GRE/2018/6, ECE/TRANS/WP.29/GRE/2018/12, ECE/TRANS/WP.29/GRE/2018/13, ECE/TRANS/WP.29/GRE/2018/18 and ECE/TRANS/WP.29/GRE/2018/26, informal documents GRE-78-02, GRE-78-28, GRE-78-33, GRE-79-08 and GRE-79-09, as well as the comments made during the seventy-eighth and seventy-ninth sessions of GRE have been taken into account. The modifications to the existing text of the UN Regulations are marked in bold for new or strikethrough for deleted characters.

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\* In accordance with the programme of work of the Inland Transport Committee for 2018–2019 (ECE/TRANS/274, para. 123 and ECE/TRANS/2018/21/Add.1, cluster 3.1), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate



## I. Proposal

### A. Supplement [12] to the 06 [and Supplement 1 to the 07] series of amendments to Regulation No. 48 (Installation of lighting and light-signalling devices)

*Insert a new paragraph 2.9.1.6.1., to read:*

**"2.9.1.6.1. "LED substitute light source" means a LED light source of a category which has a counterpart light source category producing light by another light generating technology."**

*Paragraph 3.2.5., amend to read:*

**"3.2.5. ~~The application shall include~~ a statement of the method used for the definition of the apparent surface (see paragraph 2.10.4.);"**

*Insert a new paragraph 3.2.8., to read:*

**"3.2.8. at the discretion of the manufacturer, a statement indicating whether lamps approved for and equipped with LED substitute light sources are allowed to be installed on the vehicle or not and, if this is allowed, which lamps."**

*Insert a new paragraph 5.32., to read:*

**"5.32. The use of lamps approved for and equipped with LED substitute light source(s), is allowed exclusively in the case where the statement indicated in paragraph 3.2.8. is present and positive.**

**To verify that this statement is respected, both at the type approval and in the conformity of production verification, the presence of the marking on the lamps related to the use of LED substitute light source(s) shall be checked."**

*Annex 1, insert a new item 9.30., to read:*

**"9.30. Lamps approved for and equipped with LED substitute light source(s) are allowed to be installed on this vehicle type: yes/no<sup>2,3</sup>**

.....  
<sup>3</sup> **If yes, list the applicable lamps."**

### B. Supplement [3] to the 02 series of amendments to Regulation No. 53 (Installation of lighting and light-signalling devices for L<sub>3</sub> vehicles)\*\*

*Paragraph 3.2.5., amend to read:*

**"3.2.5. ~~The application shall include~~ a statement of the method used for the definition of the apparent surface (see paragraph 2.6.);"**

*Insert a new paragraph 3.2.6., to read:*

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\*\* GRE is also invited to consider whether similar amendments should be introduced as a draft Supplement 20 to the 01 series of amendments to Regulation No. 53 (note by the secretariat).

**"3.2.6.** at the discretion of the manufacturer, a statement indicating whether lamps approved for and equipped with LED substitute light sources are allowed to be installed on the vehicle or not and, if this is allowed, which lamps."

*Insert a new paragraph 5.22., to read:*

**"5.22.** The use of lamps approved for and equipped with LED substitute light source(s), is allowed exclusively in the case where the statement indicated in paragraph 3.2.6. is present and positive.

To verify that this statement is respected, both at the type approval and in the conformity of production verification, the presence of the marking on the lamps related to the use of LED substitute light source(s) shall be checked."

*Annex 1, insert a new item 9.23., to read:*

**"9.23.** Lamps approved for and equipped with LED substitute light source(s) are allowed to be installed on this vehicle type: yes/no<sup>2,4</sup>

.....  
<sup>4</sup> If yes, list the applicable lamps."

**C. Supplement [11] to the 01 series of amendments to Regulation No. 74 (Installation of lighting and light-signalling devices (mopeds))**

*Paragraph 3.2.5., amend to read:*

**"3.2.5.** ~~The application shall include~~ a statement of the method used for the definition of the apparent surface (see paragraph 2.6.);"

*Insert a new paragraph 3.2.6., to read:*

**"3.2.6.** at the discretion of the manufacturer, a statement indicating whether lamps approved for and equipped with LED substitute light sources are allowed to be installed on the vehicle or not and, if this is allowed, which lamps."

*Insert a new paragraph 5.20., to read:*

**"5.20.** The use of lamps approved for and equipped with LED substitute light source(s), is allowed exclusively in the case where the statement indicated in paragraph 3.2.6. is present and positive.

To verify that this statement is respected, both at the type approval and in the conformity of production verification, the presence of the marking on the lamps related to the use of LED substitute light source(s) shall be checked."

*Annex 1, insert a new item 5.12., to read:*

**"5.12.** Lamps approved for and equipped with LED substitute light source(s) are allowed to be installed on this vehicle type: yes/no<sup>2,5</sup>

.....  
<sup>5</sup> If yes, list the applicable lamps."

**D. Supplement 1 to the 01 series of amendments of Regulation No. 86 (Installation of lighting and light-signalling devices for agricultural vehicles)**

*Paragraph 3.2.5., amend to read:*

"3.2.5. ~~The application shall include~~ A statement of the method used for the definition of the apparent surface (see paragraph 2.10.);"

*Insert a new paragraph 3.2.6., to read:*

**"3.2.6. at the discretion of the manufacturer, a statement indicating whether lamps approved for and equipped with LED substitute light sources are allowed to be installed on the vehicle or not and, if this is allowed, which lamps."**

*Insert a new paragraph 5.21., to read:*

**"5.21. The use of lamps approved for and equipped with LED substitute light source(s), is allowed exclusively in the case where the statement indicated in paragraph 3.2.6. is present and positive.**

**To verify that this statement is respected, both at the type approval and in the conformity of production verification, the presence of the marking on the lamps related to the use of LED substitute light source(s) shall be checked."**

*Annex 1, insert a new item 5.29., to read:*

**"5.29. Lamps approved for and equipped with LED substitute light source(s) are allowed to be installed on this vehicle type: yes/no<sup>2,4</sup>**

.....  
<sup>4</sup> **If yes, list the applicable lamps."**

## **II. Justification**

1. This proposal was originally developed and submitted by GTB to the seventy-seventh and seventy-eighth sessions of GRE. That proposal has been considered by the Task Force Substitutes and Retrofits (TF SR). As a result, amendments are proposed by TF SR. Comments from the preceding meetings of GRE have been taken into account.

2. In response to the comments made during the seventy-eighth session of GRE, the following amendments were made:

- (a) Application of the LED substitute light sources only in the 06 series of amendments of UN Regulation No. 48 and, if applicable, the 07 series;
- (b) An editorial correction was made in the paragraphs describing the necessary documentation for application.
- (c) Editorial corrections were made due to new documents ECE/TRANS/WP.29/GRE/2018/6, ECE/TRANS/WP.29/GRE/2018/12, ECE/TRANS/WP.29/GRE/2018/13, ECE/TRANS/WP.29/GRE/2018/18, ECE/TRANS/WP.29/GRE/2018/26, GRE-79-08 and GRE-79-09.