<u>Informal document</u> **GRE-78-02** (78th GRE, 24–27 October 2017, item 5 of the provisional agenda)

Explanation of the differences between ECE/TRANS/WP.29/GRE/2017/4 and ECE/TRANS/WP.29/GRE/2017/22

(Proposal for a collective amendment to Regulations Nos. 48, 53, 74 and 86)

A proposal prepared by the expert from GTB, to introduce requirements for light emitting diode (LED) substitute light sources into Regulations Nos. 48, 53, 74 and 86, was submitted to GRE at its 77th session as GRE/2017/4. Several comments were received from the GRE experts and, after further consideration by GTB, a revised proposal (ECE/TRANS/WP.29/GRE/2017/22) will be addressed under item 5 of the agenda for the 78th session of GRE.

This informal document has been prepared to explain the detail of the changes introduced into ECE/TRANS/WP.29/GRE/2017/22.

I. Proposal

A. Supplement 9 to the 06 series of amendments to Regulation No. 48 (Installation of lighting and light-signalling devices)

Insert a new paragraph 2.7.1.1.8., to read:

"2.7.1.1.8. "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.). statements relating to:
- 3.2.5.1. the method used for the definition of the apparent surface (see paragraph 2.10.) and;
- 3.2.5.2. 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 5.30., to read:

"5.30. 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 3.2.5.2. 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^{2, 3}

3 If yes, list the applicable lamps."

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been removed

B. Supplement 11 to the 05 series of amendments to Regulation No. 48 (Installation of lighting and light-signalling devices)

Insert a new paragraph 2.7.1.1.8., to read:

"2.7.1.1.8. "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.). statements relating to:
- 3.2.5.1. the method used for the definition of the apparent surface (see paragraph 2.10.);
- 3.2.5.2. 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 5.30., to read:

"5.30. 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 3.2.5.2. 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, add a new item 9.29., to read:

"9.29. Lamps approved for and equipped with LED substitute light source(s) are allowed to be installed on this vehicle type: yes/no^{2,3}

.....

3 If yes, list the applicable lamps."

C. Supplement 18 to the 04 series of amendments to Regulation No. 48 (Installation of lighting and light-signalling devices)

Insert a new paragraph 2.7.1.1.8., to read:

"2.7.1.1.8. "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.). statements relating to:
- 3.2.5.1. the method used for the definition of the apparent surface (see paragraph 2.10.);
- 3.2.5.2. 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 5.30., to read:

"5.30. 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 3.2.5.2. is present and positive.

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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 9.29., to read:

"9.29. Lamps approved for and equipped with LED substitute light source(s) are allowed to be installed on this vehicle type: yes/no^{2, 3}

.....

D. Supplement 6 to the 03 series of amendments to Regulation No. 48 (Installation of lighting and light-signalling devices)

Insert a new paragraph 2.7.1.1.8., to read:

"2.7.1.1.8. "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.). statements relating to:
- 3.2.5.1. the method used for the definition of the apparent surface (see paragraph 2.10.);
- 3.2.5.2. 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 5.27., to read:

"5.27. 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 3.2.5.2. 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 9.28., to read:

"9.28. Lamps approved for and equipped with LED substitute light source(s) are allowed to be installed on this vehicle type: yes/no^{2, 3}

......

E. Supplement 2 to the 02 series of amendments to Regulation No. 53 (Installation of lighting and light-signalling devices for L₃ vehicles)

Insert a new paragraph 2.5.20., to read:

"2.5.20. "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:

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Comment [GTB16]: The square brackets have been removed

³ If yes, list the applicable lamps."

If yes, list the applicable lamps."

- to:

 The application shall include a statement of the method used for the definition of the apparent surface (see paragraph 2.10.). statements relating to:
- 3.2.5.1. the method used for the definition of the apparent surface (see paragraph 2.10.);
- 3.2.5.2. 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 3.2.5.2. 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 9.22., to read:

"9.22. Lamps approved for and equipped with LED substitute light source(s) are allowed to be installed on this vehicle type: yes/no^{2,4}

.....

4 If yes, list the applicable lamps."

F. Supplement 10 to the 01 series of amendments to Regulation No. 74 (Installation of lighting and light-signalling devices (mopeds))

Insert a new paragraph 2.5.15., to read:

"2.5.15. "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.). statements relating to:
- 3.2.5.1. the method used for the definition of the apparent surface (see paragraph 2.10.);
- 3.2.5.2. 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 5.19., to read:

"5.19. 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 3.2.5.2. 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^{2,5}

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- ⁵ If yes, list the applicable lamps."
- G. Supplement 7 to the original version of Regulation No. 86 (Installation of lighting and light-signalling devices for agricultural vehicles)

Amend paragraph 2.6.28., to read:

"2.6.28.

"Light source" means one or more elements for visible radiation, which may be assembled with one or more transparent envelopes and with a base for mechanical and electrical connection, possibly assembled with one or more components to control the elements for visible radiation.

A light source may also be constituted by the extreme outlet of a light guide, as part of a distributed lighting or light signalling system not having a built in outer lens.

Insert a new paragraph 2.6.28.1., to read:

2.6.28.1. "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.). statements relating
- 3.2.5.1. the method used for the definition of the apparent surface (see paragraph 2.10.);
- 3.2.5.2. 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 3.2.5.2. 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 5.26., to read:

"5.26. Lamps approved for and equipped with LED substitute light source(s) are allowed to be installed on this vehicle type: yes/no^{2,4}

.....

Comment [GTB25]: This text has been editorially modified to improve clarity

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Comment [GTB28]: The square brackets have been removed

⁴ If yes, list the applicable lamps."