



**Economic and Social
Council**

Distr.
GENERAL

TRANS/WP.29/GRE/2003/8/Rev.1
19 January 2004

ENGLISH
Original: ENGLISH
ENGLISH AND FRENCH ONLY

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on Lighting and Light-Signalling (GRE)

(Fifty-second session, 30 March - 2 April 2004, agenda item 7.1.)

PROPOSAL FOR AMENDMENTS TO REGULATION No. 7

(Position, stop, and end-outline marker lamps)

Transmitted by the expert from the Working Party "Brussels 1952" (GTB)

Note: The text reproduced below was prepared by the expert from GTB in order to insert into Regulation No. 7 provisions regarding distributed lighting systems, taking into account the decision by GRE taken at its fifty-first session (TRANS/WP.29/GRE/51, para. 30). The proposed amendments are marked in **bold** characters. When preparing the revised proposal, the following documents have been considered:

- The GTB proposal to include in Regulation No.48 the definitions relating to light sources and to distributed lighting systems (TRANS/WP.29/GRE/2001/31/Rev.1, as indicated in TRANS/WP.29/2003/61 and TRANS/WP.29/GRE/2001/31/Rev.2);
- Amendments to Regulation No. 98 regarding distributed lighting systems (TRANS/WP.29/2003/62);
- Revision 3 of Regulation No. 7, as well as Supplement 8 to the 02 series of amendments and its Corrigendum 1.

Note: This document is distributed to the Experts on Lighting and Light-Signalling only.

A. PROPOSAL

Paragraph 1.6., replace the words "filament lamp" by "**light source**".

Add new paragraph 1.7., to read:

"1.7. "lens" means the outermost component of a signal lamp unit which transmits light through the illuminating surface."

Add a new paragraph 2.1.6., to read:

"2.1.6. Whether a distributed lighting system is used and which function(s) is (are) intended to be provided by this system."

Paragraph 2.2.2., amend to read:

- "2.2.2. A brief technical description stating, in particular, with the exception of lamps with non-replaceable light sources:**
- **the category or categories of light source prescribed; in the case of filament lamps or gas-discharge light sources, this shall be one of those contained in Regulation No. 37 or No. 99; or**
 - **the light source module specific identification code.**

In the case of ..."

Insert new paragraphs 2.2.3. and 2.2.4., to read:

"2.2.3. A brief technical description including the make(s) and type(s) of the ballast(s) and/or the components of the distributed lighting system, where it applies.

2.2.4. If the gas-discharge light source in a distributed lighting system is not approved according to Regulation No. 99, information describing the light source sufficiently to permit identification. This information shall include a drawing with dimensions and the basic electrical and photometric values, an indication whether the light source complies with the UV radiation requirements of paragraph 3.10. of Regulation No. 99 and a test report related to paragraph 5.9. of this Regulation."

Paragraph 2.2.3. (former), renumber as paragraphs 2.2.5.

Paragraph 2.2.4. (former), renumber as paragraphs 2.2.6. and amend to read:

"2.2.6. Two samples (in the case of a distributed lighting system two complete systems); if the approval is"

Paragraph 2.2.5. (former), renumber as paragraph 2.2.7.

Paragraph 3.2., amend to read:

- "3.2. Must bear a clearly legible and indelible marking indicating the category or categories of **light sources** prescribed; this is not valid for lamps with non-replaceable light sources;"

Paragraph 4.1.2., amend to read:

- "4.1.2. When two or more lamps are part of the same unit of grouped, combined or reciprocally incorporated lamps **or of a distributed lighting system**, approval may be granted only if each of these lamps satisfies the provisions set out in this Regulation or in another Regulation. Lamps not satisfying the provisions of any of those Regulations shall not be part of such unit of grouped, combined or reciprocally incorporated lamps. This provision shall not apply to headlamps fitted with a double-filament **light source**, where only one beam is approved."

Add new paragraphs 5.7. to 5.13., to read:

- "5.7. **In case of a distributed lighting system the gas-discharge light source used in the light-generator may be a non-replaceable gas-discharge light source not approved according to Regulation No. 99. In all other cases the gas-discharge light source(s) shall be replaceable and approved to Regulation No. 99.**
- 5.8. **In the case of replaceable gas-discharge light sources the lamp holder shall conform to the dimensional characteristics as given on the data sheet of IEC Publication 60061-2, relevant to the category of gas-discharge light source used. The gas-discharge light source shall fit easily into the lamp.**
- 5.9. **The interval between the time of activation of a lamp or distributed lighting system and the time the photometric and colorimetric requirements in point HV are met shall not exceed 200 ms.**
- 5.10. **The distributed lighting system, when equipped with (a) gas-discharge light source(s), shall not generate radiated or power line disturbance to cause malfunction of other electric/electronic systems of the vehicle. 2/**
- 5.11. **Light transmitting components made of plastic material shall be tested for their resistance to light source radiations:**

The following test shall be done:

Flat samples of each light transmitting plastic component of the lamp are exposed to the light of the gas-discharge light source. The parameters such as angles and distances of these samples shall be the same as in the lamp. These samples shall have the same colour and surface treatment, if any, as the parts of the lamp.

After 1,500 hours of continuous exposure, the colorimetric specifications of the transmitted light must be met with a new standard gas-discharge light source,

and the surfaces of the samples shall be free of cracks, scratches, scalings or deformation.

5.12. If it is necessary for the test procedure, the technical service responsible for the type approval tests may require from the manufacturer additional test samples, test benches or special power supplies.

5.13. The test procedure shall be carried out under the mounting specifications indicated by the manufacturer."

Add a new footnote 2/, to read:

"2/ Compliance with the requirements for electromagnetic compatibility is relevant to the individual vehicle type."

Paragraph 6.2.4.2., amend to read:

"6.2.4.2. ...
... obtained with all **light** sources in operation."

Paragraph 7.2., renumber the reference to footnote 2/ and the footnote 2/ as footnote 3/

Paragraph 7.6., renumber as paragraph 7.5.

Annex 2, item 9., amend to read:

"9. ...

Light source module specific identification code :
Distributed lighting system **yes/no 2/**"

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B. JUSTIFICATION

GTB has submitted to GRE proposals to introduce provisions regarding distributed lighting systems in Regulations Nos. 48 and 98. This proposal is intended as an approach to introduce such provisions in the Regulations for signalling lamps, in a similar way as in the draft standard SAE J2282. If sufficient experience has been gained with the application of Regulation No. 7, similar provisions could be introduced in other Regulations.

The proposal also corrects a few editorial errors.
