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Item 4.6.8 of the provisional agenda

**1958 Agreement – Consideration of draft amendments
to existing Regulations submitted by GRE****Proposal for Supplement 6 to the 04 series of amendments to
Regulation No. 19 (Front fog lamps)****Submitted by the Working Party on Light and Light-signalling***

The text reproduced below was adopted by the Working Party on Light and Light-signalling (GRE) at its sixty-ninth session (ECE/TRANS/WP.29/GRE/69, paras. 20, 21 and 48). It is based on ECE/TRANS/WP.29/GRE/2013/19 as amended by Annex VI to the report, ECE/TRANS/WP.29/GRE/2013/25 not amended and also on paragraph 48. of the report. 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 and 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.

Contents, annexes, paragraph 12., amend to read:

"12. Requirements in case of use of LED module(s)."

Introduction, amend to read:

"Introduction

This ...

(b) Light sources can be selected according to the provisions of Regulation No. 37 (Incandescent filament light sources) and Regulation No. 99 (gas discharge light sources). LED modules may also be used.

(c) The cut-off and the gradient definitions ... "

Paragraph 1.4.3., amend to read:

"1.4.3. The characteristics of the optical system; (basic optical design, type/category of light source, LED module, etc.),"

Paragraph 1.4.5., amend to read:

"1.4.5. The category of filament lamp(s) used, as listed in Regulation No. 37, Regulation No. 99 and/or the LED module specific identification code(s) (if applicable)."

Paragraph 2.4.2., amend to read:

"2.4.2. In the case of LED module(s), the specific identification code of the module shall be stated. The drawing shall contain sufficient details to identify it and the position intended for the specific identification code and the trademark of the applicant."

Paragraph 2.4.4., amend to read:

"2.4.4. If the front fog lamp is fitted with LED module(s), a brief technical specification shall be provided. This information shall include the part number assigned by the light source manufacturer, 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 4.6. of Annex 12 to this Regulation, an official test report related to paragraph 5.8. of this Regulation and the objective luminous flux."

Paragraph 2.4.5., shall be deleted.

Paragraphs 2.4.6. to 2.4.11., renumber as 2.4.5. to 2.4.10.

Paragraphs 2.4.6.1. and 2.4.6.2., shall be deleted.

Paragraph 2.4.7., amend to read:

"2.4.7. In the case of LED module(s) and if no provisions are taken to shield the relevant front fog lamp components made of plastic material from UV-radiation of light sources, e.g. by UV-retaining glass filters:

One sample of each of the relevant materials. This shall have similar geometry to that of the front fog lamp being tested. Each material sample shall have the same appearance and surface treatment, if any, as intended for use in the front fog lamp to be approved."

Paragraph 2.4.8., amend to read:

"2.4.8. In the case of an approval of a front fog lamp containing plastic lenses and/or having inner optical parts made from plastic, which have already been tested:
..."

Paragraph 3.1., amend to read:

"3.1. The samples of a type of front fog lamp which are submitted for approval shall clearly, legibly and indelibly bear:

- (a) The trade name or mark of the applicant,
- (b) Marking indicating the class of the front fog lamp, and in case of Class F3 front fog lamps:
- (c) The LED module specific identification code, if any."

Paragraph 3.3., amend to read:

"3.3. The approval marking shall be placed on an inner or outer part (transparent or not) of the device which cannot be separated from the transparent part of the device emitting light. In any case the marking shall be visible when the device is fitted on the vehicle, at least when a movable part such as the hood or boot lid or a door is opened."

Paragraph 3.4., amend to read:

"3.4. In case of Class F3 front fog lamps with LED module(s) the lamp shall bear the marking of the rated voltage, rated wattage and the light source module specific identification code."

Paragraphs 5.7. to 5.13., amend to read:

"5.7. In the case of Class F3, irrespective of whether the light sources can be replaced or not, they shall be:

- 5.7.1. One or more light sources approved according to:
 - 5.7.1.1. Regulation No. 37 and its series of amendments in force at the time of application for type approval, provided that no restriction on their use is made
 - 5.7.1.2. Or, Regulation No. 99 and its series of amendments in force at the time of application for type approval,
- 5.7.2. And/or, one or more LED modules where the requirements of Annex 12 to this Regulation shall apply; compliance with these requirements shall be tested.

5.8. In the case of LED module it shall be checked that:

- 5.8.1. The design of the LED module(s) shall be such that they can be fitted in no position other than the correct one.
- 5.8.2. Non-identical light source modules, if any, shall be non-interchangeable within the same lamp housing.
- 5.8.3. The LED module(s) shall be tamperproof.

5.9. In case of front fog lamps with light source(s) having a total objective luminous flux that exceeds 2,000 lumens, a reference shall be made in item 10. of the communication form of Annex 1.

- 5.10. If the lens of the front fog lamp is made of plastic materials, tests shall be done according to the requirements of Annex 6.
- 5.10.1. The UV resistance of light transmitting components located inside the front fog lamp and made of plastic material shall be tested according to Annex 6, paragraph 2.7.
- 5.10.2. The test in paragraph 5.10.1. is not necessary if low-UV type light sources as specified in Regulation No. 99 in Annex 12 to this Regulation are used, or if provisions are taken, to shield the relevant lamp components from UV radiation, e.g. by glass filters.
- 5.11. The front fog lamp and its ballast system of light source control gear shall not generate radiated or power line disturbances, which cause a malfunction of other electric/electronic systems of the vehicle¹:
- 5.12. Front fog lamps, designed to operate permanently with an additional system to control the intensity of the light emitted, or which are reciprocally incorporated with another function, using a common light source, and designed to operate permanently with an additional system to control the intensity of the light emitted, are permitted.
- 5.13. In the case of Class F3 the sharpness and linearity of the cut-off shall be tested according to the requirements of Annex 9."

¹ Compliance with the requirements for electromagnetic compatibility is relevant to the vehicle type.

Paragraph 6.4.1.5., amend to read:

- 6.4.1.5. Compliance with the requirements of paragraph 5.8.1. shall be verified at least with respect to the values in line 3 and 4 of table of paragraph 6.4.3.

Line 6 in the table of Paragraph 6.4.3., amend to read:

"

Line 6 ***	-2.5°	-10° to +10°	2,700 min	All line
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"

Paragraph 10.1., amend to read:

- "10.1. Front fog lamps shall be so manufactured as to conform to the type approved under this Regulation.

The compliance with the requirements set forth in paragraphs 6. and 7. above shall be verified as follows:

- 10.1.1. The minimum requirements for Conformity of Production (CoP) control procedures set forth in Annex 7 to this Regulation shall be complied with.
- 10.1.2. The minimum requirements for sampling by an inspector set forth in Annex 8 to this Regulation shall be complied with."

Annex 1, item 10.4., to be deleted.

Annex 1, items 10.5. up to 10.10., renumber as items 10.4. up to 10.9.

Annex 1, item 10.5., amend to read:

- "10.5. LED module specific identification code:"

Annex 1, item 10.8., rename as item 10.7. and amend to read:

- 10.7. Luminous flux of the light source (see paragraph 5.9.) greater than 2,000 lumens: yes/no²

Annex 8, paragraphs 2. to 6. amend to read:

- "2. First sampling
- In the first sampling four front fog lamps are selected at random. The first sample of two is marked A, the second sample of two is marked B.
- 2.1. The conformity of mass-produced front fog lamps shall not be contested if the deviation of any specimen of samples A and B (all four lamps) is not more than 20 per cent.
- In the case, that the deviation of both lamps of sample A is not more than 0 per cent, the measurement can be closed.
- 2.2. The conformity of mass-produced front fog lamps shall be contested if the deviation of at least one specimen of samples A or B is more than 20 per cent.
- The manufacturer shall be requested to bring his production in line with the requirements (alignment) and a repeated sampling according to paragraph 3. below shall be carried out within two months' time after the notification. The samples A and B shall be retained by the Technical Service until the entire CoP process is finished.
3. First repeated sampling
- A sample of four lamps is selected at random from stock manufactured after alignment-
- The first sample of two is marked C, the second sample of two is marked D.
- 3.1. The conformity of mass-produced front fog lamps shall not be contested if the deviation of any specimen of samples C and D (all four lamps) is not more than 20 per cent.
- In the case, that the deviation of both lamps of sample C is not more than 0 per cent, the measurement can be closed.
- 3.2. The conformity of mass-produced front fog lamps shall be contested if the deviation of at least
- 3.2.1. One specimen of samples C or D is more than 20 per cent but the deviation of all specimen of these samples is not more than 30 per cent.
- The manufacturer shall be requested again to bring his production in line with the requirements (alignment).
- A second repeated sampling according to paragraph 4. below shall be carried out within two months' time after the notification. The samples C and D shall be retained by the Technical Service until the entire COP process is finished.
- 3.2.2. One specimen of samples C and D is more than 30 per cent.
- In this case the approval shall be withdrawn and paragraph 5 below shall be applied.
4. Second repeated sampling
- A sample of four lamps is selected at random from stock manufactured after alignment.

- The first sample of two is marked E, the second sample of two is marked F.
- 4.1. The conformity of mass-produced front fog lamps shall not be contested if the deviation of any specimen of samples E and F (all four lamps) is not more than 20 per cent.
- In the case, that the deviation of both lamps of sample E is not more than 0 per cent, the measurement can be closed.
- 4.2. The conformity of mass-produced front fog lamps shall be contested if the deviation of at least one specimen of samples E or F is more than 20 per cent.
- In this case the approval shall be withdrawn and paragraph 5 below shall be applied.
5. Approval withdrawn
- Approval shall be withdrawn according to paragraph 11. of this Regulation.
6. Change of the vertical position of the cut-off line
- With respect to the verification of the change in vertical positions of the cut-off line under the influence of heat, the following procedure shall be applied:
- One of the front fog lamps of sample A after sampling procedure in paragraph 2. of this Annex shall be tested according to the procedure described in paragraph 2.1. of Annex 4 after being subjected three consecutive times to the cycle described in paragraph 2.2.2. of Annex 4.
- The front fog lamp shall be considered as acceptable if Δr does not exceed 3.0 mrad.
- If this value exceeds 3.0 mrad but is not more than 4.0 mrad, the second front fog lamp of sample A shall be subjected to the test after which the mean of the absolute values recorded in both samples shall not exceed 3.0 mrad.
- However, if this value of 3.0 mrad on sample A is not complied with, the two front fog lamps of sample B shall be subjected to the same procedure and the value of Δr for each of them shall not exceed 3.0 mrad."

Annex 12, the title, amend to read:

"Requirements in case of use of led module(s)"

Annex 12, paragraphs 1.1., 1.2. and 1.3., amend to read:

- "1.1. Each LED module sample submitted shall conform to the relevant specifications of this Regulation when tested with the electronic light source control-gear(s) supplied, if any.
- 1.2. LED modules shall be so designed as to be, and to remain in good working order when in normal use. They shall moreover exhibit no fault in design or manufacture.
- 1.3. LED modules shall be tamperproof."

Annex 12, paragraph 2.2. and its subparagraphs, amend to read:

- "2.2. In case of LED modules:
- 2.2.1. The LED(s) on the LED module shall be equipped with suitable fixation elements.
- 2.2.2. The fixation elements shall be strong and firmly secured to the light source(s) and the LED module."

Annex 12, paragraphs 3.1.3. to 3.1.3.2., amend to read:

- "3.1.3. LED module operating conditions
- 3.1.3.1. All samples shall be tested under the conditions as specified in paragraph 6.4.1.4. of this Regulation.
- 3.1.3.2. If not specified differently in this annex, LED modules shall be tested inside the front fog lamp as submitted by the manufacturer."

Annex 12, paragraph 3.1.5., shall be deleted.

Annex 12, paragraphs 3.2.1. and 3.2.2., amend to read:

- "3.2.1. LED modules shall be aged.
- 3.2.2. The tests below shall be carried out after ageing with the LED module(s) supplied by the submitted electronic light source control-gear at test voltage."

Annex 12, paragraph 4.5.1., amend to read:

- "4.5.1. Red content
- In addition to measurements as described in paragraph 7. of part A or B to this Regulation, the minimum red content of the light of a LED module shall be such that:
- ..."

Annex 12, paragraph 4.6., amend to read:

- "4.6. UV-radiation
- The UV-radiation of the LED module shall be such that:
- ..."

Figure 1, shall be deleted
