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Working Party on Lighting and Light-Signalling (GRE) (Fifty-fourth session, 5 – 8 April 2005, agenda item 10.2.)

PROPOSAL FOR COLLECTIVE AMENDMENTS TO REGULATIONS Nos. 37 AND 99 REGARDING THE COLOUR "SELECTIVE YELLOW"

("Filaments lamps" and "Gas-discharge light sources")

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

<u>Note</u>: The text reproduced below was prepared by the expert from GTB in order to delete the references to "selective yellow" in the respective Regulations (TRANS/WP.29/GRE/52, para. 29). This document addresses those parts of the proposal by Germany (TRANS/WP.29/GRE/2004/52) which concern Regulations Nos. 37 and 99 and which are still relevant for the practical application of these Regulations. It also takes into account the proposal TRANS/WP.29/GRE/2004/36 by Japan.

This proposal is based on a document without a symbol (informal document No. GRE-53-5), distributed during the fifty-third GRE session (TRANS/WP.29/GRE/53, paras. 42 and 43). The modification to the existing text of the Regulation is marked in **bold** characters.

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

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UNECE REGULATION No. 37 – Filaments lamps

(The following proposals are based upon Supplement 23 to the 03 series of amendments and applies up to its Supplement 25)

A.1. PROPOSAL FOR THE OPTION 1: In the case that "selective yellow" colour would remain (partly or totally) in Regulation No. 37

Annex 1,

Sheet H1/1, footnote 4/, amend to read:

"4/ The colour of the light emitted shall be white or selective-yellow."

Sheet H3/1, footnote 1/, amend to read:

"1/ The colour of the light emitted shall be white or selective-yellow."

Sheet H4/1, footnote 3/, amend to read:

"3/ The colour of the light emitted shall be white or selective-yellow."

Sheet H7/1, footnote 3/, amend to read:

"3/ The colour of the light emitted shall be white or selective-yellow."

Sheet H8/1, footnote 4/, amend to read:

"4/ The colour of the light emitted shall be white or selective-yellow."

Sheet H11/1, footnote 4/, amend to read:

"4/ The colour of the light emitted shall be white or selective-yellow."

Sheet HB3/2, footnote 6/, amend to read:

"6/ The colour of the light emitted shall be white or selective-yellow."

Sheet HB4/2, footnote 6/, amend to read:

"6/ The colour of the light emitted shall be white or selective-yellow."

Sheet HS1/1, footnote 3/, amend to read:

"3/ The colour of the light emitted shall be white or selective-yellow."

Sheet R2/1, footnote 2/, amend to read:

"2/ The colour of the light emitted shall be white or selective-yellow."

Sheet S1/S2/1, footnote 1/, amend to read:

"1/ The colour of the light emitted shall be white or selective-yellow."

Sheet S3/1, footnote 1/, amend to read:

"1/ The colour of the light emitted shall be white or selective-yellow."

B.1. JUSTIFICATION

Corrections related to "colourless bulb"

GRE approved, during the forty-seventh session in October 2001, proposals concerning "white light" (TRANS/WP.29/GRE/2000/10/Rev.1 and TRANS/WP.29/GRE/2000/10/Rev.1/Add.1). In March 2002, the World Forum (WP.29) approved these proposals as part of draft Supplement 22. It was promised to GRE in the justification that all filament lamp sheets would be checked in the future on the wording "colourless bulb" at the time that the sheets would be revised. However, for some of these categories of light sources, it might take a long time before such an amendment might take place. These revisions are proposed here: replace "colourless bulb" by "emitting white light".

Specifications of "yellow"

While checking all filament lamp datasheets in Regulation No. 37 on "colourless bulb", it was found that, from the introduction of H8 onwards, the colour "yellow" was introduced instead of "selective yellow" as before. This change was made at the time that selective yellow was deleted from the new headlamp Regulations Nos. 112 and 113. New selective yellow filament light sources from that moment onwards made no sense any longer except for those intended for front fog lamps, for which an enlarged area of colour boundaries is allowed. So the wording "yellow" is the wording for "selective yellow" with colour boundaries as specified for front fog lamps.

"Yellow" has not been defined in Regulation No. 37, but the colour boundaries for "selective yellow" for front fog are. It is proposed here to replace the wordings "yellow" by "selective yellow" on sheets HB3/2 and HB4/2.

An additional proposal for aligning the definitions of the colour boundaries is made below.

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A.2. PROPOSAL FOR THE OPTION 2: In the case that all "yellow" colour boundaries would be aligned including Regulation No. 37

Paragraph 3.6.2., amend to read:

"3.6.2. The colorimetric characteristics of

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finished filament lamps emitting selective-yellow light:

limit towards red $y \ge 0.138 + 0.580 x$ limit towards green $y \le 1.290 x - 0.1$

limit towards white: $y \ge 0.940 - x$ and

 $y \ge 0.440;$

finished filament lamps emitting amber light:

B.2. JUSTIFICATION

New definitions of "selective yellow"

GTB proposed to align all "yellow", "selective yellow", ("enlarged selective yellow" and "selective yellow for front fog"); to rename into "selective yellow" with colour boundaries:

limit towards red $y \ge 0.138 + 0.580 \text{ x}$ limit towards green $y \le 1.290 \text{ x} - 0.100$ limit towards white: $y \ge 0.940 - \text{x}$ and $y \ge 0.440$

These boundaries comprise all existing boundaries and are equal to the front fog selective yellow but extended to the spectral distribution to allow harmonization with SAE. See diagram below.

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UNECE REGULATION No. 99 – Gas-discharge light sources (the following proposals are based upon Supplement 2 to the original version - TRANS/WP.29/949)

A.3. PROPOSAL FOR THE OPTION 1: In the case that "selective yellow" colour would remain in Regulation No. 99

Paragraph 2.1.2.3., amend to read:

"2.1.2.3. bulb colour. A **selective** yellow bulb or an additional **selective** yellow outer bulb, solely intended"

Paragraph 2.4.2., amend to read:

"2.4.2. of gas-discharge light source. If the applicant so desires the same approval code may be assigned to both gas-discharge light sources emitting white and **selective** yellow light (see paragraph 2.1.2.3.)."

Paragraph 3.8., amend to read:

"3.8. Luminous flux

..... relevant data sheet. In the case where white and **selective** yellow is specified for the same type, the objective value applies to light sources emitting white light, whereas the luminous flux of the light source emitting **selective** yellow light shall be at least 68 per cent of the specified value."

Paragraph 3.9.1., amend to read:

"3.9.1. The colour of the light emitted shall be white or **selective** yellow as prescribed on the relevant data sheet."

Paragraph 3.9.3., amend to read:

"3.9.3. In case of **selective** yellow light, the colorimetric characteristics shall

Paragraph 3.11., amend to read:

"3.11. Standard gas-discharge light sources

..... relevant data sheet. In case of a type emitting white and **selective** yellow light, the standard light source shall emit white light."

B.3. JUSTIFICATION

Specifications of "yellow"

In Regulation No. 99 the wording "yellow" is used and colour boundaries as for front fog lamps are defined. In case the wording "selective yellow" would be used in all relevant Regulations, it would make sense to use the same wording.

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A.4. PROPOSAL FOR THE OPTION 2: In the case that all "yellow" colour boundaries would be aligned including Regulation No. 99

Paragraph 3.9.3., amend to read:

"3.9.3. In case of **selective** yellow light, the colorimetric characteristics shall lie within the area formed by the following limits:

limit towards red $y \ge 0.138 + 0.580 x$ limit towards green $y \le 1.290 x - 0.100$ limit towards white: $y \ge 0.940 - x$ and $y \ge 0.440$."

B.4. JUSTIFICATION

New definitions of "selective yellow"

In case the definitions of "selective yellow" would be aligned in all relevant regulations, it would make sense to use the same here.

C. NOTE

Notation of colour boundaries

Although GRE, in principle, decided at its fiftieth session in April 2003 to change the notation of colour boundaries, this proposal was written in the manner as was done before.

D. DIAGRAM

