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

Working Party on Lighting and Light-Signalling (GRE)
(Fifty-third session, 4-8 October 2004,
agenda item 2.17.)

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 48

(Installation of lighting and light-signalling devices)

Transmitted by the expert from Germany

Note: The text reproduced below was prepared by the expert from Germany in order to introduce in the Regulation requirements for the installation of Special Warning Lamps on the basis of Regulation No. 65. At its fifty-first session, GRE agreed to delete Annex 9 to TRANS/WP.29/GRE/2002/3/ Rev.1 and Germany was requested to prepare a proposal for amendments to Regulation No. 48. Thus, the present proposal is based on the text of the above-mentioned Annex 9. 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.

PROPOSAL

Paragraph 5.15., amend to read (inserting a new entry at the end):

"5.15.

special warning lamps:

**for general applications: amber
for special applications: blue **/"**

Insert new paragraphs 6.22. to 6.22.8.2., to read:

"6.22. SPECIAL WARNING LAMP

6.22.1. Presence

Optional on motor vehicles.

6.22.2. Number

6.22.2.1. Rotating or stationary flashing lamps (Category T)

One or more.

6.22.2.2. Directional flashing lamps (Category X)

Two (to the front and/or to the rear)

6.22.3. Arrangement

6.22.3.1. Rotating or stationary flashing lamps (Category T)

Reference axis perpendicular to the roadway plane

6.22.3.2. Directional flashing lamps (Category X)

Orientation to the front or to the rear

6.22.4. Position

6.22.4.1. Position of rotating flashing lamps

6.22.4.2. Position of directional flashing lamps

**In height: Not less than 500 mm and not more than 2,100 mm above the ground.
In application of the special warning flash lamps as a front warning system not less than 800 mm above the ground or 650 mm if the shape of the bodywork makes it impossible to keep within 800 mm and not more**

than 1,200 mm or 1,400 mm if the shape of the bodywork makes it impossible to keep within 1,200 mm.

In width: that point on the apparent surface in the direction of the reference axis which is farthest from the vehicle's median longitudinal plane shall not be more than 400 mm from the extreme outer edge of the vehicle. The inner edges of the directional flashing lamps shall be not less than 600 mm. This distance may be reduced to 400 mm where the overall width of the vehicle is less than 1,300 mm.

In length: No special requirement.

6.22.5. Geometric visibility

The apparent surface of a special warning lamp shall be visible within the field defined by the following angles of geometric visibility.

6.22.5.1. Rotating or stationary flashing lamps (Category T)

6.22.5.1.1. horizontal angle 360°

6.22.5.1.2. vertical angle:

- a) for blue lights, 4° above and below the horizontal plane passing through the centre of the light source;
- b) for amber lights, 8° above and below the horizontal plane passing through the centre of the light source;

The vertical angle below the horizontal plane can be smaller if the geometric visibility of the lamp is met at a point located 1 m above the surface on which the vehicle stands and at 20 m from the vehicle.

In the case where more than one lamp is fitted, the requirements are met if at least one lamp is visible under the conditions specified.

6.22.5.2. Directional flashing lamps (Category X)

6.22.5.2.1. horizontal angle:

- Directional flashing lamp of category "narrow angle effect":
30° to the left and to the right to the axis through the centre of the light sources parallel to the longitudinal axis of the vehicle
- Directional flashing lamp of category "wide angle effect":
90° directed outwards the vehicle and 30° to the inside to the axis through the centre of the light sources parallel to the longitudinal axis of the vehicle

6.22.5.2.2. vertical angle:

8° above and below to the axis through the centre of the light sources parallel to the longitudinal axis of the vehicle.

6.22.6. Electrical connections

The directional flashing lamps shall be switched on only together with the special warning lamp.

6.22.7. Tell-tale

Circuit closed tell tale mandatory.

Failure tell tale is mandatory in case of use of several light sources and/or grouped systems building one special warning lamp, in all other cases optional.

6.22.8. Other requirements:

6.22.8.1. Rotating or stationary flashing lamps (Category T)

When mounted correctly, each lamp shall be within 1° of the position specified. In the case of intermediate quick release devices, the mounting shall be made on a fixing zone for which it is intended. To check mounting accuracy, the lamp shall be mounted five times on an appropriate test fixture, and its attitude determined. In no cases shall the inclination vary by more than 1° from the mounting plane or from a plane perpendicular to the mounting tube axis.

6.22.8.2. Directional flashing lamps (Category X)

If not otherwise specified, as specified in paragraph 5.3. of this Regulation."
