

Proposal for a Supplement to the 04 series of amendments and a Supplement to the 05 series of amendments to Regulation No. 48 (Installation of lighting and light-signalling devices)"

The text reproduced below was prepared by the expert from France in order to delete a design restrictive requirement for which no clear justification is included in the regulation.

This text is based on ECE/TRANS/WP.29/2014/21 adopted during March 2014 session for 06 series of amendments to Regulation N° 48.

I. Proposal

Paragraph 5.18.4., amend to read:

"5.18.4. In the case ... the movable component.

or

- (b) Should the interdependent lamp system be partly mounted on the fixed component and partly mounted on a movable component, **with the exception of direction indicator lamps**, the interdependent lamp(s) specified by the Applicant during the device approval procedure shall meet all the position, outwards geometric visibility, colorimetric and photometric requirements for those lamps, at all fixed positions of the movable component(s)

... the movable component(s).

For direction indicator lamps, the interdependent lamp(s) specified by the Applicant during the device approval procedure shall meet all the position, geometric visibility, photometric and colorimetric requirements at all fixed positions of the movable component(s). This does not apply where, to fulfil or complete the geometric visibility angle, additional lamps are activated when the movable component is in any fixed open position, provided that these additional lamps satisfy all the position, photometric and colorimetric requirements applicable to the direction indicator lamps installed on the movable component."

"6.22.7.4.3. The class E mode(s) of the passing-beam shall not operate unless the vehicle's speed exceeds ~~70~~ **60**km/h and one or more of the following conditions is/are automatically detected:

- (a) The road characteristics correspond to motorway conditions¹ ~~and/or~~ **or** the vehicle's speed exceeds 110 km/h (E-signal applies);
- (b) In case of a class E mode of the passing-beam which, according to the system's approval documents /communication sheet, complies with a "data set" of Regulation No. 123, Annex 3, Table 6, only.

Data set E1: the vehicle's speed exceeds 100 km/h (E1-signal applies);

Data set E2: the vehicle's speed exceeds 90 km/h (E2-signal applies);

Data set E3: the vehicle's speed exceeds 80 km/h (E3-signal applies).

¹ Traffic directions being separated by means of road construction, or, a corresponding lateral distance of opposing traffic is identified. This implies a reduction of undue glare from vehicles headlamps in opposing traffic."

II. Justification

1. Interdependent lamps being part of an interdependent lamp system were introduced into UN Regulations Nos. 7 and 48 following a proposal by GTB at the sixty-seventh GRE session (ECE/TRANS/WP.29/GRE/2009/62, ECE/TRANS/WP.29/GRE/2009/63 and a detailed justification can be found in GRE-62-2-Rev.1). At that time it was decided to await further consideration by GTB on the introduction of Interdependent Lamps into UN Regulation No. 6 because of the special application of direction indicator lamps as the hazard warning signal.

2. During its 70th session GRE decided to modify regulations 6 and 48 to introduce interdependent direction indicator lamps only for 06 series of amendment to UN Regulation No. 48.

3. In the justification of the proposed 06 series of amendments document at GRE, it was stated that it is not necessary to apply these amendments to the earlier 04 and 05 series of amendments that are still in force.

4. Such restrictive decision clearly constitute a design restrictive requirement for which no clear justification is included in the Regulation as vehicles already in production are equipped with such solution (single lamps in two parts, one on the aisle, one on a movable component) and homologated according the 04 series of amendments to UN Regulation No.48.

5. During its 70th session GRE decided to amend, in Regulation No. 48, the activation criteria for the Class "E" passing beam mode of an AFS system for the following reasons. The benefit in term of performance and safety being established, it is difficult to understand why vehicles applying 04 and 05 series which is permitted in the transitional provisions cannot take benefit of such progress.

6. With the current level of technology, different approaches are available to determine motorway conditions and the activation criteria for the class-E dipped beam. The vehicle speed will provide the required information in the case that the speed limit for the road is above 110 km/h and assuming that the driver is not exceeding the speed limit on a regular road. New technology based on sensors such as camera systems and GPS navigation can provide accurate information to determine if motorway conditions are fulfilled regardless of vehicle speed.

7. For trucks and other vehicles with a low controlled maximum speed and when the speed signal cannot be utilised, the availability of such sensor based information allows slow moving vehicles to take advantage of the safety benefits of the class-E passing beam mode.

8. To improve the performance of the system and avoid unnecessary on-off activation of the motorway light, GTB proposes that the speed limit in paragraph 6.22.7.4.3 is reduced to 60 km/h and the requirements of paragraph 6.22.7.4.3(a) are amended to indicate a clear alternative to either detect the motorway conditions with sensors or only activate the E mode above a speed of 110km/h.
