



## Economic and Social Council

Distr.: General  
18 July 2011

Original: English  
English and French only

---

### Economic Commission for Europe

#### Inland Transport Committee

#### World Forum for Harmonization of Vehicle Regulations

#### Working Party on Lighting and Light -Signalling

#### Sixty-sixth session

Geneva, 4–6 October 2011

Item 4(a) of the provisional agenda

#### **Regulation No. 48 (Installation of lighting and light-signalling devices) - Proposal for Supplement 9 to the 04 series of amendments**

### **Proposal for Supplement 9 to the 04 series of amendments**

#### **Submitted by the expert from the Working Party "Brussels 1952"\***

The text reproduced below was prepared by the expert from the Working Party "Brussels 1952" (GTB) to introduce additional criteria relating to the operation of adaptive stop-lamps. The modifications to the existing text of the Regulation are marked in bold for new or strikethrough for deleted characters.

---

\* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106, 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.

## I. Proposal

Paragraph 5.26., amend to read:

"5.26. Rear direction indicator lamps, rear position lamps, stop lamps (except stop lamps of category S4) and rear fog lamps with variable luminous intensity control are allowed, which respond simultaneously to at least one of the following external influences: ambient lighting, fog, snowfall, rain, spray, dust clouds, contamination of the light emitting surface. **Additionally, provided that the vehicle speed does not exceed 20 km/h, it is allowed to reduce the luminous intensity of a stop lamp within the photometric requirements of Regulation No.7.**

**In all cases the provided that their prescribed intensity relationship is shall be maintained throughout variation transitions. and no sharp variation of intensity shall be observed during transition-variation transitions.** Stop lamps of category S4 may produce variable luminous intensity independent from the other lamps. It may be possible for the driver to set the functions above to luminous intensities corresponding to their steady category and to return them to their automatic variable category."

## II. Justification

1. Paragraph 5.26. of Regulation No. 48 defines a number of external influences to which a variable luminous intensity control shall respond. Vehicle speed is not included amongst these influences but it provides a useful means that could result in less complaints of disturbance due to the intensity of rear-mounted lamps. This is particularly relevant in view of the tendency for vehicle manufacturers to increase the luminous intensity of stop lamps to improve their visibility during daytime.

2. The illumination at the driver's eye increases according to the inverse square law with the result that discomfort can be experienced by a driver approaching a preceding vehicle; for example the activation of stop lamps in low speed driving situations and short separation distances between vehicles (nose-to-tail traffic, stops at traffic lights, etc.).

3. To ensure good visibility and avoid glare situations, it is proposed to include the vehicle speed as a criterion for adaptive rear lamp functions but, in any case, the intensity of light emitted remains within the limits according to the photometric requirements of the device regulations. Steady burning and variable stop lamps are required to fulfil the same minimum luminous intensities and therefore the perception of variable stop lamps will not be impaired when their intensity is reduced to a (minimum) legal level, which is the same as for steady burning stop lamps.