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Working Party on Lighting and Light-Signalling (GRE) (Forty-seventh session, 1-5 October 2001, agenda item 1.5.)

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 48

(Installation of lighting and light-signalling devices)

Transmitted by the Expert from the International Organization of Motor Vehicle Manufacturers (OICA)

 $\underline{\text{Note}}$: The text reproduced below was prepared by the expert from OICA in order to adapt the direction indicator lamp tell-tale prescriptions of the Regulation to the new technologies. It is based on the text of a document distributed without a symbol (informal document No. 14) during the forty-sixth session (TRANS/WP.29/GRE/46 para. 31).

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

GE.01-22618

A. PROPOSAL

Insert new paragraphs 6.5.8.1. to 6.5.8.4., to read:

- "6.5.8.1. An operating tell-tale is mandatory for front and rear direction indicator lamps when these lamps are equipped with a single light source.
- 6.5.8.2. An operating tell-tale is optional for front and rear direction indicators lamps with multiple light sources.
- 6.5.8.3. The operating tell-tale may be visual or auditory or both. If it is visual it shall be a flashing light which, at least in the event of the malfunction of any of the front or rear direction indicators lamps, is either extinguished, or remains alight without flashing, or shows a marked change of frequency. If it is entirely auditory it shall be clearly audible and shall show a marked change of frequency, at least in the event of the malfunction of any of the front or rear direction indicator lamps.
- 6.5.8.4. If a motor vehicle is equipped to draw a trailer it must be fitted with a special visual operational tell-tale for the direction indicator lamps at the rear of the trailer, subject to the following. The-tell tale is only required to operate when the rear direction indicator lamps of the trailer are equipped with a single light source. A special visual operational tell-tale is not required if the tell-tale of the drawing vehicle can detect the failure of a rear direction indicator lamp on the trailer when it is equipped with a single light source."

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B. JUSTIFICATION

Lighting technology is developing better and more reliable devices that may not be compatible with the manner in which devices have been treated in the past.

The development of devices equipped with multiple light sources is an example and many of the existing Regulations have been and are still being amended to cater for these devices.

These devices cannot only give longer life and greater reliability but can also significantly reduce the energy consumption. However because of these changes, it can be much more difficult to sense the failure of devices so equipped without complex and expensive electronics, a problem made virtually impossible on tractor/trailer outfits, where tractor units are expected to be coupled with any trailer.

It is because of this that OICA are making the accompanying proposal to amend paragraph 6.5.8 of Regulation 48.

The following points form the basis of the justification of this proposal:

- 1) It is the device equipped with a single filament light source where total failure can occur.
- 2) Such failure is invariably the light source itself.
- 3) Devices with multiple light sources therefore have an in-built redundancy factor, especially if the type approval requirements require the minimum intensity requirements to be met with one light source disconnected.
- 4) Tractor units designed to sense failures in a particular manner (e.g. electrical current levels) are not compatible with trailers equipped with different devices.
- 5) In-use examinations are now much more common and failure criteria can be developed for multiple light source equipped devices at such examinations.