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## **ECONOMIC COMMISSION FOR EUROPE**

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Working Party on Lighting and Light-Signalling (GRE)

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## PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 98

(Headlamps with gas-discharge light sources)

Submitted 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 amend the light source start-up requirements due to the technical progress and design changes: the use of a headlamp with a common light source for providing both, driving and passing beams. The modifications to the current text of the Regulation (up to Supplement 6 to the original version) are marked in **bold** characters.

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

## A. PROPOSAL

Paragraph 6.1.7., amend to read:

"6.1.7. Four seconds after ignition of a headlamp **that** has not been operated for 30 minutes or more:"

Insert new paragraphs 6.1.7.1. to 6.1.7.3., to read:

- "6.1.7.1. At least 60 lux shall be attained at point HV, for a headlamp producing driving beam only.
- 6.1.7.2. At least 10 lux shall be attained at point 50V for headlamps producing passing beam only or alternately passing and driving beam functions as described in paragraph 5.4. of this Regulation.
- 6.1.7.3. In either case the power supply shall be sufficient to secure the required rise of the high current pulse."

## B. JUSTIFICATION

At the time of introduction of Regulation No. 98, light source start-up requirements were introduced to ensure a satisfactory changeover from passing beam to driving beam. This was necessary in the case where the passing and driving beams were produced by separate gas-discharge light sources.

As technology has developed and the reciprocal incorporation of the passing and driving beam is commonly achieved using one headlamp equipped with a constantly energized gas-discharge light source and a mechanical means of dipping the beam pattern, the driving beam start-up requirements have become unnecessary. Additionally, the imposition of the start-up requirement can place extreme demands upon the light source with a consequential reduction in its lifetime and performance. Reciprocal incorporation of the passing and driving beam provides opportunities to improve the packaging of all necessary lamps on the front of the vehicle and, by removing the need for an additional separate driving beam lamp, achieves significant energy saving.

The proposed amendment to paragraph 6.1.7. is intended to remove these unnecessary requirements and to align the provisions of the Regulation to the technical progress. As a gas-discharge light source is operating in its steady burning condition throughout the changeover between passing and driving beam, the photometric requirements of paragraph 6. of the Regulation are fully satisfied. It can also be assumed that a headlamp, when first operated, will be in the position to produce the passing beam. In the case where the headlamp is only producing the driving beam, the original provisions are unchanged.

The editorial presentation of paragraph 6.1.7. has been re-arranged to make it better readable.

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