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**Economic Commission for Europe****Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****Working Party on Lighting and Light-Signalling****Seventy-third session**

Geneva, 14 – 17 April 2015

Item 7 (i) of the provisional agenda

**Other Regulations – Regulation No. 98 (Headlamps with gas-discharge light sources)****Proposal for Supplement 7 to the 01 series of amendments to Regulation No. 98 (Headlamps with gas-discharge light sources)****Submitted by the expert from the International Automotive Lighting and Light Signalling Expert Group (GTB)\***

The text reproduced below was prepared by the expert from GTB to introduce a new high-intensity discharge (HID) category (D9S) with dual-level operation into Regulation No. 99. The modifications to the existing text of the Regulation are marked in bold for new or strikethrough for deleted characters.

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\* In accordance with the programme of work of the Inland Transport Committee for 2012–2016 (ECE/TRANS/224, para. 94 and ECE/TRANS/2012/12, 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 2.1.5.*, amend to read:

"2.1.5. Which light sources are energized when the various beam combinations are used **and, in case of a light source category with more than one objective luminous flux value, which objective luminous flux value is used;**"

*Paragraph 2.1.6.*, amend to read:

"2.1.6. The category of light source as listed in Regulations Nos. 37 or 99 and their series of amendments in force at the time of application for type approval **and, in case of a light source category with more than one objective luminous flux value, which objective luminous flux value is used for passing beam and for driving beam;**

*Paragraph 6.1.3.*, amend to read:

"6.1.3. The headlamp shall be deemed satisfactory if the photometric requirements set in the present paragraph 6. are met with one light source, which has been aged during at least 15 cycles, in accordance with Annex 4, paragraph 4. of Regulation No. 99.

It shall be a standard (étalon) light-source approved according to Regulation No. 99 and its luminous flux may differ from the objective luminous flux specified in Regulation No. 99. In this case, the luminous intensities shall be corrected accordingly.

**If a gas-discharge light source category is used with more than one objective luminous flux value, the applicant shall choose one of the objective luminous flux values as indicated in the relevant data sheet of Regulation No. 99 and a reference stating which objective flux was chosen for type approval shall be made in items 9.4.1. and 9.4.2. in the communication form of Annex 1."**

*Annex 1*, insert new items 9.4.1. and 9.4.2. to read:

**9.4.1. If more than one objective luminous flux value is specified: Objective luminous flux value used for the principal passing beam.**

**9.4.2. If more than one objective luminous flux value is specified: Objective luminous flux value used for the driving beam."**

## II. Justification

1. This is a proposal to introduce a new HID category (D9S) into Regulation No. 99 with dual-level operation, i.e. with two defined wattage values and corresponding luminous flux values. This new category (D9S) is the first light source in R99 that has two defined power levels.

2. When this dual-level light source is used in a headlamp which is being approved according to Regulation No. 98, the testing and approval provisions must be clearly defined in this Regulation to avoid misinterpretation. Therefore, it is proposed to amend the relevant paragraphs of Regulation No. 98 to take into account the multi-level aspects of D9S and possible future multi-level light sources in Regulation No. 99.