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Working Party on Lighting and Light-Signalling (GRE)

(Fifty-third session, 4-8 October 2004,  
agenda item 14.2.)

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 45  
(Headlamp Cleaners)

Transmitted by the Informal Group "Adaptive Front-lighting Systems (AFS)"

Note: The text reproduced below was prepared by the GRE/AFS informal group in order to permit the type approval of adaptive front-lighting systems for motor vehicles. It is based on a document without a symbol (informal document No. GRE-52-9), distributed during the fifty-second GRE session. It reflects the outcome of discussions at the sixth AFS informal meeting (as reported in informal document No. GRE-52-4). The modifications to the existing text of the Regulation are marked in **bold** characters.

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

## A. PROPOSAL

Paragraph 2.1., amend to read:

"2.1. Headlamp cleaner" means a complete device with which all or part of the light emitting surface of a headlamp **or an AFS system** can be cleaned;"

Insert a new paragraph 6.1.1., to read:

**"6.1.1. In case the passing beam is provided by an adaptive front-lighting system (AFS): the headlamp cleaner shall be designed and constructed to clean those parts of the light-emitting surface of the AFS which need, according to the provisions of paragraph 6.22.9.1. of Regulation No. 48, to be installed with a cleaning device."**

Paragraph 7.1., amend to read:

"7.1. The efficiency of the cleaner shall be tested in accordance with the requirements of Annex 4 to this Regulation. The cleaning efficiency at the points on the measuring screen which are specified below shall, after every cleaning period, amount to at least 70 per cent for the passing lamp and also 70 per cent for the optional driving lamp; **in case of an AFS this provision applies to half the sum of the (individually measured) photometric values from those lighting units indicated in paragraph 6.1.1. above and activated for a designated beam.**"

Paragraphs 7.3.1. and 7.3.2., amend to read:

"7.3.1. Headlamps approved in respect of the passing beam only (marking C or HC **or X C/V/E/W/T in the approval mark**);

Measuring points: 50 R(L) and 50 V. 4/

7.3.2. Headlamps approved in respect of the passing beam and the driving beam (marking CR, HCR, C+R, C+HR, HC+R or HC+HR **or X C/V/E/W/R/T** )  
Measuring points; 50R(L) (and 50V if in the same headlamps, different optic systems for the driving lamp and the passing lamp are provided)."

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## B. JUSTIFICATION

In relation to the introduction of the AFS, Regulation No. 45 should be amended for clarification. AFS system relevant photometric procedures should apply, depending on the design of the system.

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