



**Economic and Social
Council**

Distr.
GENERAL

ECE/TRANS/WP.29/GRSG/2007/15
1 February 2007

Original: ENGLISH
ENGLISH AND FRENCH ONLY

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations

Working Party on General Safety Provisions

Ninety-second session

Geneva, 16-20 April 2007

Item 2.2.4. of the provisional agenda

BUSES AND COACHES

Regulation No. 107 (M₂ and M₃ vehicles)

Lighting to assist boarding and alighting of passengers

Proposal for draft amendments to Regulation No. 107

Submitted by the experts from Sweden and the International Organization of
Motor Vehicle Manufacturers

The text reproduced below was prepared by the experts from Sweden and the International Organization of Motor Vehicle Manufacturers (OICA) in order to introduce into the Regulation provisions for service-door lighting. This proposal supersedes the proposal of ECE/TRANS/WP.29/GRSG/2006/32, considered at the ninety-first session of the Working Party on General Safety Provisions (GRSG) (ECE/TRANS/WP.29/GRSG/70, para. 16). The modifications to the current text of the Regulation are marked in **bold** characters.

Note: This document is distributed to the Experts on General Safety Provisions only.

A. PROPOSAL

Text of the Regulation,

Insert a new paragraph 2.40., to read:

"2.40. "Service-door lighting" means a lighting device(s) of the vehicle designed to illuminate the exterior vicinity of service doors and wheels."

Annex 3,

Insert new paragraphs 7.6.12. to 7.6.12.2.6., to read:

"7.6.12. Service-door lighting

7.6.12.1. Service-door lighting may be provided to illuminate the flat, horizontal portion of the ground defined in paragraph 7.6.12.2.2. so as to aid passengers boarding and alighting the vehicle and to enable the presence of a passenger within this portion of the ground to be detected by the driver from his seat.

7.6.12.2. Service-door lighting, if fitted, shall:

7.6.12.2.1. be of white colour;

7.6.12.2.2. illuminate a flat, horizontal portion of the ground having a width of 2 m measured from a plane parallel to the median longitudinal vertical plane of the vehicle which passes through the outermost point of the closed service door and over a length extending from a transverse plane which passes through the foremost edge of the closed service door to a transverse plane passing through the centre line of the foremost wheels situated to the rear of the service door, or, in the case where there are no such wheels, to a transverse plane passing through the rear of the vehicle;

7.6.12.2.3. have limited dazzle outside a zone on the ground having a maximum width of 5 m measured from the side of the vehicle and a maximum length limited by a transverse plane passing through the front of the vehicle and a transverse plane passing through the rear of the vehicle;

7.6.12.2.4. if the lower edge of the lighting device is less than 2 m from the ground, not project more than 50 mm beyond the overall width of the vehicle measured without this device and have radii of curvature of not less than 2.5 mm;

7.6.12.2.5. be activated and deactivated manually by a separate switch, and

7.6.12.2.6. be installed so that the device can only be switched on when a service door is operated and the vehicle speed does not exceed 5 km/h and is switched off automatically before the vehicle reaches a speed exceeding 5 km/h."

Annex 11,

Paragraph 2.4.2., amend to read:

" on guided bus systems, if not retracted,

- service-door lighting devices."

B. JUSTIFICATION

Adequate lighting that illuminates the area outside the service doors of a bus is an important safety feature that assists the passengers when boarding and alighting as well as enables the driver to see whether a passenger has fallen whilst boarding or alighting. In Sweden, several accidents have happened where a passenger has fallen whilst alighting. When falling, he or she has glided in under the bus and been run over by the rear wheel of the bus when the bus drove away from the bus stop.

The lighting device shall be placed so as to minimize the risk of injuries if a person comes into contact with the device. Therefore, when a device is placed less than 2 m above the ground, it must not project more than 50 mm beyond the overall width of the vehicle and it must not have sharp edges. This is in line with the requirements of paragraph 5.1.1. of Regulation No. 61, which sets the upper limit of the "external surface" at 2.00 m above the ground, above which the projection of devices is not assessed. A projection of 50 mm and radii of curvature of 2.5 mm falls within the range of limits set-out in paragraph 6.6.1. of Regulation No. 61 for devices less than 2.00 m above the ground.

The requirements on how the device shall be activated and deactivated and that it shall have limited dazzle are stated to minimize the risk that the light might trouble other road users.

At the eighty-ninth session, the expert from Sweden presented TRANS/WP.29/GRSG/2005/16, introducing provisions for optional installation of lighting devices that adequately illuminate the area outside the service doors (service-door lighting) of vehicles of categories M₂ and M₃. At the ninetieth session, GRSG considered informal documents Nos. GRSG-90-29 (tabled by Sweden) and GRSG-90-12 (tabled by OICA) and at the ninety-first session ECE/TRANS/WP.29/GRSG/2006/32 (tabled by Sweden and OICA) on the same subject.

This joint proposal by Sweden and OICA supersedes the above-mentioned documents.
