

Proposal for Supplement 6 to the 04 series of amendments to Regulation No. 48
(Installation of lighting and light-signalling devices)

Note: The text reproduced below was prepared by the experts from Japan in order to divide the documents into the AHS (Automatic Headlamp Switching) requirements and the other requirements. The proposal is based on ECE/TRANS/WP.29/2010/23, Corr.1 and WP.29-150-02. The modifications to ECE/TRANS/WP.29/2010/23, Corr.1 and WP.29-150-02 are marked in **bold** or ~~strikethrough~~ characters.

A. PROPOSAL

Paragraph 2.7.17., amend to read:

"2.7.17. "Conspicuity marking" means a device intended to increase the conspicuity of a vehicle, when viewed from the side or rear (or in the case of trailers, additionally from the front), by the reflection of light emanating from a light source not connected to the vehicle, the observer being situated near the source;"

Insert a new paragraph 2.33., to read:

"2.33. "Rear-end collision alert signal (RECAS)" means an automatic signal given by the leading vehicle to the following vehicle. It warns that the following vehicle needs to take emergency action to avoid a collision."

Paragraph 5.15., amend to read:

"5.15. The colours of the light emitted by the lamps are the following:
....
emergency stop signal: amber or red
rear-end collision alert signal: amber
rear registration plate lamp: white
....
conspicuity marking: white to the front;
white or yellow to the side;
red or yellow to the rear 9/
... "

Paragraph 6.1.9.1., amend to read:

"6.1.9.1. The aggregate maximum intensity of the main-beam headlamps which can be switched on simultaneously shall not exceed 430,000 cd, which corresponds to a reference value of 100."

Paragraph 6.3.6.1.2.2., amend to read:

"6.3.6.1.2.2. depending on the mounting height shall have the following value(s):

$$h \leq 0.8$$

Limits: between -1.0 per cent and -3.0 per cent
Initial aiming: between -1.5 per cent and -2.0 per cent

$$h > 0.8$$

Limits: between -1.5 per cent and -3.5 per cent
Initial aiming: between -2.0 per cent and -2.5 per cent "

Paragraph 6.13.1., amend to read:

"6.13.1. Presence

Devices of A or AM categories (visible from the front), and devices of R, R1, R2, RM1 or RM2 Categories (visible from the rear):

Mandatory on vehicles exceeding 2.10 m in width. Optional on vehicles between 1.80 and 2.10 m in width. On chassis-cabs the rear end-outline marker lamps are optional."

Paragraph 6.19.7.1., amend to read:

"6.19.7.1. The daytime running lamps shall be switched ON automatically when the device which starts and/or stops the engine (propulsion system) is set in a position which makes it possible for the engine (propulsion system) to operate. However, the daytime running lamps may remain OFF while the following conditions exist:

6.19.7.1.1. the automatic transmission control is in the park position; or

6.19.7.1.2. the parking brake is in the applied position; or

6.19.7.1.3. prior to the vehicle being set in motion for the first time after each manual activation of the propulsion system.

6.19.7.2. The daytime running lamps may be switched OFF manually when the vehicle speed does not exceed 10 km/h provided they switch ON automatically when the vehicle speed exceeds 10 km/h or when the vehicle has travelled more than 100 m and they remain ON until deliberately switched off again.

6.19.7.3. The daytime running lamp shall switch OFF automatically when the device which starts and/or stops the engine (propulsion system) is set in a position which makes it impossible for the engine (propulsion system) to operate or the

front fog lamps or headlamps are switched ON, except when the latter are used to give intermittent luminous warnings at short intervals. ~~{16/}~~ **15/**

6.19.7.4. The lamps referred to in paragraph 5.11. are not switched ON when the daytime running lamps are switched ON, ~~except if daytime running lamps are operating according to paragraph 6.2.7.6.2."~~

Paragraphs 6.19.7.2. and 6.19.7.3. (former), renumber as paragraphs 6.19.7.5. and 6.19.7.6.

Paragraph 6.21.1.3. to 6.21.1.3.2., amend to read:

"6.21.1.3. Optional:

6.21.1.3.1. to the rear and to the side:

on all other categories of vehicles, not otherwise specified in paragraphs 6.21.1.1. and 6.21.1.2. above, including the cab of tractor units for semi-trailers and the cab of chassis-cabs.

partial or full contour marking may be applied instead of mandatory line markings, and full contour marking may be applied instead of mandatory partial contour marking.

6.21.1.3.2. to the front:

line marking on vehicles of categories O₂ , O₃ and O₄.

partial or full contour marking may not be applied to the front."

Paragraphs 6.21.5.1., amend to read:

"6.21.5.1. for rear and front conspicuity markings (see Annex 11, Figures 1a and 1b) the observation plane is perpendicular to the longitudinal axis of the vehicle situated 25 m from the extreme end of the vehicle and bounded by:"

Paragraph 6.21.6.2., amend to read:

"6.21.6.2. To the rear and to the front:

....."

Paragraph 6.22.9.3., amend to read:

"6.22.9.3. The aggregate maximum intensity of the lighting units that can be energized simultaneously to provide the main-beam lighting or its modes, if any, shall not exceed 430,000 cd, which corresponds to a reference value of 100.

This maximum intensity shall be obtained by adding together the individual reference marks indicated on the several installation units that are simultaneously used to provide the main-beam."

Insert new paragraphs 6.25. to 6.25.8., to read:

- "6.25. REAR-END COLLISION ALERT SIGNAL
- 6.25.1. Presence
Optional
- The rear-end collision alert signal shall be given by the simultaneous operation of all the direction indicator lamps fitted as described in paragraph 6.25.7.
- 6.25.2. Number
As specified in paragraph 6.5.2
- 6.25.3. Arrangement
As specified in paragraph 6.5.3
- 6.25.4. Position
As specified in paragraph 6.5.4
- 6.25.5. Geometric visibility
As specified in paragraph 6.5.5
- 6.25.6. Orientation
As specified in paragraph 6.5.6
- 6.25.7. Electrical connections. Compliance with these requirements shall be demonstrated by the applicant, by simulation or other means of verification accepted by the Technical Service responsible for type approval.
- 6.25.7.1. All the lamps of the rear-end collision alert signal shall flash in phase at a frequency of 4.0 +/- 1.0 Hz.
- 6.25.7.1.1. However, if any of the lamps of the rear end collision alert signal to the rear of the vehicle use filament light sources the frequency shall be 4.0 +0.0/-1.0 Hz.
- 6.25.7.2. The rear-end collision alert signal shall operate independently of other lamps.
- 6.25.7.3. The rear-end collision alert signal shall be activated and deactivated automatically.
- 6.25.7.4. The rear-end collision alert signal shall not be activated if the direction indicator lamps, the hazard warning signal or the emergency stop signal is activated.
- 6.25.7.5. The rear-end collision alert signal may only be activated under the following

conditions:

| Vr | activation |
|----------------------------|--------------------------------|
| $V_r > 30 \text{ km/h}$ | $TTC \leq 1.4$ |
| $V_r \leq 30 \text{ km/h}$ | $TTC \leq 1.4 / 30 \times V_r$ |

"Vr (Relative Speed)": means the difference in speed between a vehicle with rear-end collision alert signal and a following vehicle in the same lane.

"TTC (Time to collision)": means the estimated time for a vehicle with rear-end collision alert signal and a following vehicle to collide assuming the relative speed at the time of estimation remains constant.

6.25.7.6. The activation period of the rear-end collision alert signal shall be not more than 3 seconds.

6.25.8. Tell-tale
Optional"

Annex 9, paragraphs 1.3. to 1.3.2., amend to read:

"1.3. Alignment of dipped-beam headlamps and class "F3" front fog lamps towards the front

1.3.1. Initial downward inclination

The initial downward inclination of the cut-off of the dipped beam and the class "F3" front fog lamps shall be set to the plated figure as required and shown in Annex 7.

Alternatively paragraph 4.1.

1.3.2. Variation of inclination with load

The variation of the dipped beam downward inclination as a function of the loading conditions specified within this section shall remain within the range:

| | |
|--------------------------------|---|
| 0.2 per cent to 2.8 per cent | for headlamp mounting height $h < 0.8$; |
| 0.2 per cent to 2.8 per cent | for headlamp mounting height $0.8 \leq h \leq 1.0$; |
| | or |
| 0.7 per cent to 3.3 per cent | (according to the aiming range chosen by the manufacturer at the approval); |
| 0.7 per cent to 3.3 per cent | for headlamp mounting height |
| $1.0 < h \leq 1.2 \text{ m}$; | |
| 1.2 per cent to 3.8 per cent | for headlamp mounting height $h > 1.2 \text{ m}$. |

In the case of a class "F3" front fog lamp with (a) light source(s) having a total objective luminous flux which exceeds 2,000 lumen, the variation of the downward inclination as a function of the loading conditions specified within this section shall remain within the range:

0.7 per cent to 3.3 per cent
1.2 per cent to 3.8 per cent
0.8 m.

for front fog lamp mounting height $h \leq 0.8$;
for front fog lamp mounting height $h >$

The states of loading to be used shall be as follows, as indicated in Annex 5 of this Regulation, for every system adjusted accordingly."

Annex 11, amend to read:

"Annex 11

VISIBILITY OF CONSPICUITY MARKINGS TO THE REAR, FRONT AND
SIDE OF A VEHICLE

(see paragraph 6.21.5. of this Regulation)

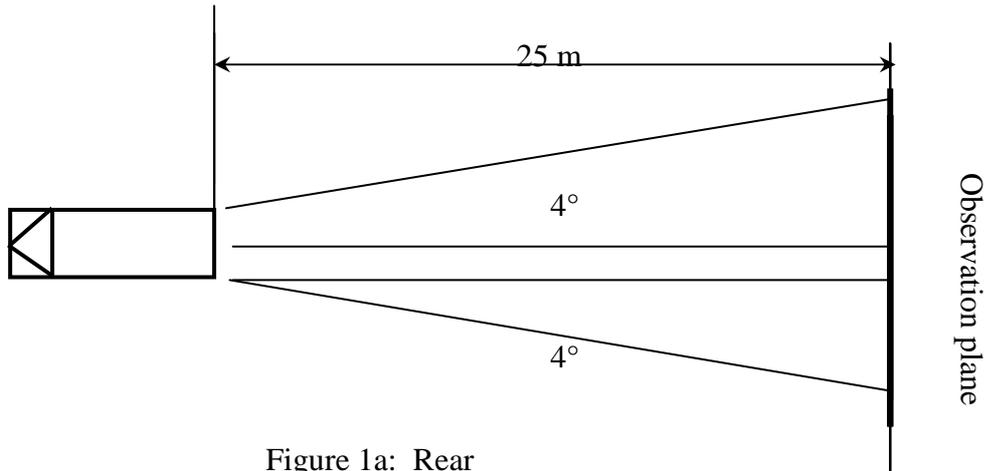


Figure 1a: Rear

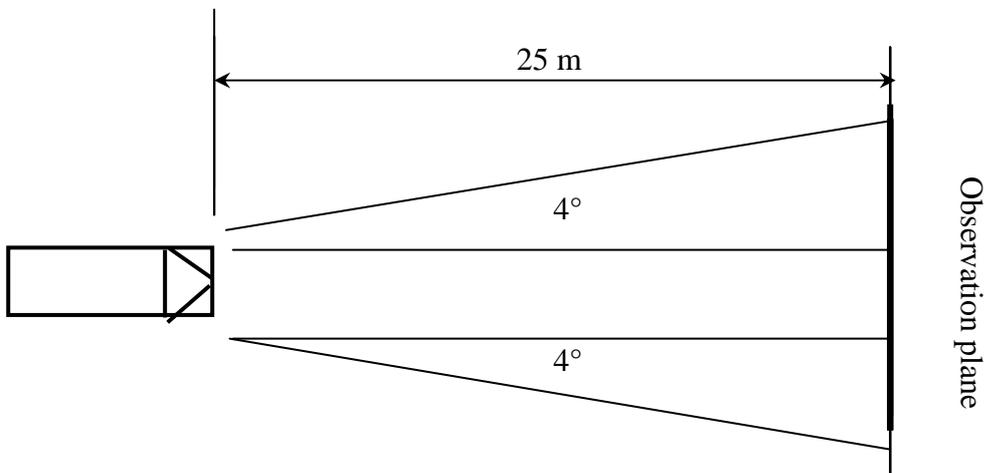


Figure 1b: Front (trailers only)

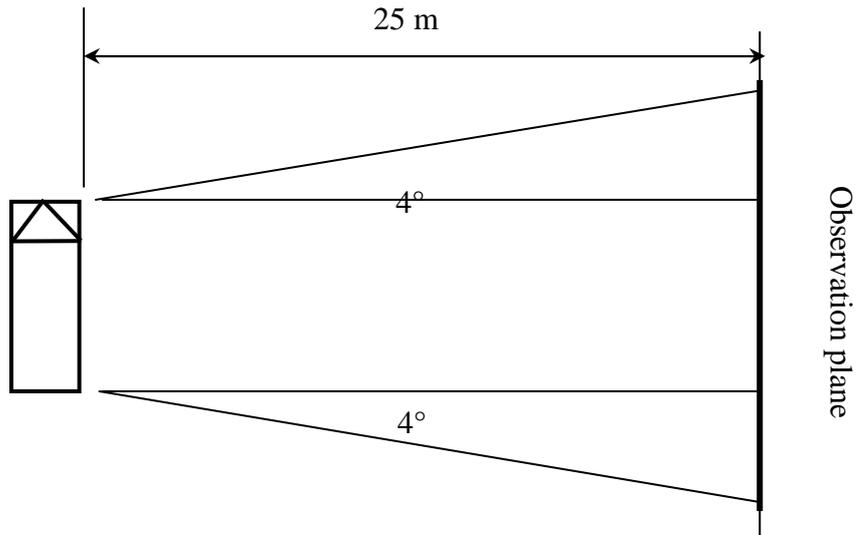


Figure 2 : Side

"

B. JUSTIFICATION

WP.29 has decided to send ECE/TRANS/WP.29/2010/23 back to GRE. Japan requested WP.29 to remove the requirements other than the AHS requirements. WP.29 suggested that it should be discussed at GRE session.

A big discussion on AHS will be expected and it may be delay again. The documents should be divided into the AHS requirements and the other requirements. And at least the other requirements should be sent to the next WP.29 in June.

Japan thinks that the AHS requirements should have been proposed as a series of amendments, according to the guidelines, TRANS/WP.29/1044. If so, the AHS requirements would not have affected the other requirements.

The followings are described in the guidelines.

1.1. Series of amendments

- 1.1.1. A series of amendments shall be used when changing the technical requirements that the vehicle systems or components must fulfil as from a certain date, in order to obtain UNECE approval and, depending on the national or regional legislation, to be able to be registered nationally or regionally, even if the amendments are a minor technical change and do not affect vehicle/component design drastically.

1.2. Supplement

1.2.1. A Supplement addresses an amendment to a Regulation which does not entail modification in the approval marking and is normally used for:

1.2.1.1. clarification of test procedures, not imposing new requirements, or

1.2.1.2. permitting previously unexpected new possibilities.

There were some similar problems and corrigenda like ECE/TRANS/WP.29/GRE/2010/17 (Corrigendum to transitional provisions of operating voltage requirements) were issued to correct them.

Japan hopes that GRE members will observe the guidelines from the next GRE session.

Supplement 6 to the 04 series

ECE/TRANS/WP.29/2010/50 (Y lamp) was approved as Supplement 5, and so this proposal will be Supplement 6.

Paragraph 6.19.7.1. to 6.19.7.4.

Except for the latter part of paragraph 6.19.7.4., these paragraphs should be separated from the AHS requirement because they are optional requirement and clarification, and do not affect the AHS requirements.

Paragraph 6.22.9.3.

According to ECE/TRANS/WP.29/GRE/62 (GRE report), this paragraph seems to be missing from ECE/TRANS/WP.29/2010/23.

05 series

Paragraph 12.22

The limitation of the paragraphs is not needed after the separation of the other requirements from the AHS requirements.
