Transmitted by the experts from Japan and OICA

Informal Document No. **GRE-63-12/Rev.1** (63rd GRE, 29-31 March 2010, agenda item 4(g))

<u>Proposal of Supplement 5 to 0405 series of amendments to Regulation No. 48</u> (<u>Installation of lighting and light-signalling devices</u>)

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 4.2., amend to read:

"4.2. An approval number shall be assigned to each type approved. Its first two digits (at present 0405, corresponding to the 0405 series of amendments) shall indicate the series of amendments incorporating the most recent major technical amendments made to the Regulation at the time of issue of the approval. The same Contracting Party shall not assign this number to another vehicle type or to the same vehicle type submitted with equipment not specified in the list referred to in paragraph 3.2.2. above, subject to the provisions of paragraph 7. of this Regulation."

Paragraph 5.11. to 5.11.2., amend to read:

- "5.11. The electrical connections shall be such that the front and rear position lamps, the end-outline marker lamps, if they exist, the side-marker lamps, if they exist, and the rear registration plate lamp can only be switched ON and OFF simultaneously.
- 5.11.1. This condition does not apply:
- 5.11.1.1. when front and rear position lamps are switched ON, as well as side-marker lamps when combined or reciprocally incorporated with said lamps, as parking lamps; or
- 5.11.1.2. when side-marker lamps flash in conjunction with direction indicators or"

Insert a new paragraph 5.11.1.3., to read:

"5.11.1.3. when light signalling system operates according to 6.2.7.6.2."

Paragraph 5.11.3.(former), renumber as paragraph 5.11.2.

<u>Insert a new paragraph 6.1.7.1.</u>, to read:

"6.1.7.1. Except when they are used to give intermittent luminous warnings at short intervals the main-beam headlamps may be switched ON, , only when the master light switch is in headlamps ON position or in "AUTO" (automatic) position and the conditions for automatic activation of dipped beam exist. In the latter case, the main beam headlamps shall be switched off automatically when the conditions for automatic activation of dipped beam ceased to exist."

Paragraphs 6.1.7.1. to 6.1.7.3. (former), renumber as paragraphs 6.1.7.2 to 6.1.7.4.

Paragraph 6.2.7., amend to read:

- "6.2.7. <u>Electrical connections</u>
- 6.2.7.1. The control for changing over to the dipped-beam shall switch off all main-beam headlamps simultaneously.
- 6.2.7.2. The dipped beam may remain switched on at the same time as the main beams.
- 6.2.7.3. In the case of dipped-beam headlamps according to Regulation No. 98, the gas-discharge light sources shall remain switched on during the main-beam operation.
- 6.2.7.4. One additional light source or one or more LED module(s), located inside the dipped-beam headlamps or in a lamp (except the main-beam headlamp) grouped or reciprocally incorporated with the respective dipped-beam headlamps, may be activated to produce bend lighting, provided that the horizontal radius of curvature of the trajectory of the centre of gravity of the vehicle is 500 m or less. This may be demonstrated by the manufacturer by calculation or by other means accepted by the authority responsible for type approval.
- 6.2.7.5. Dipped-beam headlamps may be switched ON or OFF automatically. However, it shall be always possible to switch these dipped-beam headlamps ON and OFF manually."

<u>Insert new paragraphs 6.2.7.6. to 6.2.7.7. and the reference to footnote [11/] and footnote [11/]</u>, to read:

- "6.2.7.6. If daytime running lamps are present and operate according to paragraph 6.19., either
- 6.2.7.6.1. the dipped-beam headlamps shall be switched ON and OFF automatically relative to the ambient light conditions (e.g. switch ON during nighttime driving conditions, tunnels, etc.) according to the requirements of Annex 12; or

- daytime running lamps operate in conjunction with the lamps listed in paragraph 5.11. where, as a minimum requirement, at least the rear position lamps shall be activated. [11/]; or
- 6.2.7.6.3. distinctive means are provided to inform the driver that the headlamps, position lamps and if so equipped end outline marker lamps and side marker lamps are not illuminated. Such means are:
- 6.2.7.6.3.1. two distinctly different levels of instrument panel illumination intensity are provided during night and day, indicating to the driver that the dipped beam headlamps shall be switched ON [11/]; or
- 6.2.7.6.3.2. non-illuminated indicators and identification of hand controls that are required by Regulation No. 121 to be illuminated when the headlamps are activated [11/]; or
- 6.2.7.6.3.3. a tell-tale visual, auditory or both, shall be activated only in reduced ambient lighting conditions as defined in Annex 12 to inform the driver that the dipped beam headlamps should be switched ON. Once the tell-tale is activated, it shall only be extinguished when the dipped beam headlamps have been switched on or 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 [11/].
- 6.2.7.7. Without prejudice to paragraph 6.2.7.6.1., the dipped-beam headlamps may switch ON and OFF automatically relative to other factors such as time or ambient conditions (e.g. time of the day, vehicle location, rain, fog, etc.).

 $[\underline{11}]$ This exemption applies to vehicles of categories M_+ and N_+ approved until 66 months, and for vehicles to other M and N categories approved until 84 months, after the official date of entry into force of the Supplement 5 to the 0405 series of amendment to this Regulation. These approvals will remain valid indefinitely and extention of these approvals shall be granted after the dates expressed above.]"

[Paragraph 6.2.9., the reference to footnote 11/ and footnote 11/, renumber as footnote 12/]

[Paragraph 6.3.4.2., the reference to footnote 12/ and footnote 12/, renumber as footnote 13/]

[Paragraphs 6.3.5. and 6.3.6.1.1., the reference to footnote 13/ and footnote 13/, renumber as footnote 14/]

[Paragraphs 6.5.8., the reference to footnote 13/ and footnote 13/, renumber as footnote 14/]

[Paragraphs 6.19., the reference to footnote 14/ and footnote 14/, renumber as footnote 15/]

Paragraph 6.19.7.1., amend to read [(the reference to foot note 15/ and footnote 15/, renumber as

footnote 16/):

Paragraph 6.19.7.3. to 6.19.7.4, amend to read:

- "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. 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."

<u>| Paragraphs 6.21.4.1.3. and 6.21.4.2.3., the reference to footnote 16/ and footnote 16/, renumber as footnote 17/| </u>

[Paragraph 6.22.4.1.2., the reference to footnote 17/ and footnote 17/, renumber as footnote 18/]

Paragraph 6.22.7.4.3., the reference to footnote 18/ and footnote 18/, renumber as footnote 19/]

Paragraph 6.22.7.4.5., the reference to footnote 19/ and footnote 19/, renumber as footnote 20/]

Paragraph 6.22.9.1., the reference to footnote 20/ and footnote 20/, renumber as footnote 21/1

<u>Insert new paragraphs 12.21. to 12.25</u>, to read:

- "12.21. As from the official date of entry into force of the 05 series of amendments, no Contracting Party applying this Regulation shall refuse to grant approval under this Regulation as amended by the 05 series of amendments.
- As from 48 months from the official date of entry into force of Supplement 5 to the 0405 series of amendments, Contracting Parties applying this Regulation shall grant approvals only if the vehicle type to be approved meets the requirements of paragraphs 6.2.7.6. to 6.2.7.6.3.3. of this Regulation as amended by Supplement 5 to the 0405 series of amendments."
- 12.23 Contracting Parties applying this Regulation shall continue to grant approvals to those types of vehicles which comply with the requirements of this Regulation as amended by the preceding series of amendments during the 48 months' period which follows the date of entry into force of the 05 series of amendments.

- 12.24 No Contracting Party applying this Regulation shall refuse national or regional type approval of a vehicle type approved to the 05 series of amendments to this Regulation.
- 12.25 Until 48 months after the date of entry into force of the 05 series of amendments to this Regulation, no Contracting Party applying this Regulation shall refuse national or regional type approval of a vehicle type approved to the preceding series of amendments to this Regulation."
- 12.26 Existing approvals under this Regulation before the date of entry into force of 05 series of amendment to this Regulation shall remain valid indefinitely.
- 12.27. Paragraphs 6.2.7.6.2. and 6.2.7.6.3. apply to new type of vehicles of categories M₁ and N₁ approved until 66 months, and for new type of vehicles to other M and N categories approved until 84 months, after the official date of entry into force of the 05 series of amendment to this Regulation. These approvals will remain valid indefinitely and extention of these approvals shall be granted after the dates expressed above."

Annex 2, amend to read:

"Annex 2

ARRANGEMENTS OF APPROVAL MARKS

Model A

(See paragraph 4.4. of this Regulation)

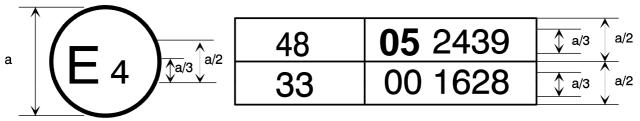


a = 8 mm min.

The above approval mark affixed to a vehicle shows that the vehicle type concerned has, with regard to the installation of lighting and light-signalling devices, been approved in the Netherlands (E4) pursuant to Regulation No. 48 as amended by the 0405 series of amendments. The approval number indicates that the approval was granted in accordance with the requirements of Regulation No. 48 as amended by the 0405 series of amendments.

Model B

(see paragraph 4.5. of this Regulation)



a = 8 mm min.

The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in the Netherlands (E4) pursuant to Regulation No. 48 as amended by the 04 05 series of amendments and Regulation No. 33. 1/ The approval number indicates that, at the dates when the respective approvals were given, Regulation No. 48 was amended by the 04 05 series of amendments and Regulation No. 33 was still in its original form.

 $\underline{1}$ / The second number is given merely as an example."

Insert a new Annex 12, to read:

"Annex 12

AUTOMATIC SWITCHING CONDITIONS DIPPED-BEAM HEADLAMPS 1/		
Ambient light outside the vehicle <u>2</u> /	Dipped-beam	Response time
	headlamps	
less than	ON	no more than 2
1000 lux		seconds
between	at manufacturer's	at manufacturer's
1000 lux and	discretion	discretion
7,000 lux		
more than 7,000 lux	OFF	more than 5 seconds,
		but no more
		than 300 seconds

- $\underline{1}$ / Compliance with these conditions shall be demonstrated by the applicant, by simulation or other means of verification accepted by the authority responsible for type approval.
- $\underline{2}$ / The illuminance shall be measured on a horizontal surface, with a cosine corrected sensor on the same height as the mounting position of the sensor on the vehicle. This may be demonstrated by the manufacturer by sufficient documentation or by other means accepted by the authority responsible for type approval."

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 <u>at least the other requirements</u> 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.