The present informal document was prepared by the group of interested experts discussing new series of amendments to UN R48. It supports document ECE/TRANS/WP29/GRE/2019/20.

# Paragraph 4.2.

The TF HS was established to the aim of simplify and clarify certain aspects of the headlamp and DRL switching and related interaction; as such, the proposal to be prepared by the TF should have been treated as a "supplement" to the present 06 Series of amendments to UN Regulation 48.

However the proposal the TF finally prepared involved more complex changes than originally expected, also requesting technical modification to the vehicles to fulfill the updated requirements.

For this reasons, it was deemed more suitable to present it as a new series of amendment, the 08 and consequently it was necessary to introduce the suitable changes in this paragraph.

### Paragraph 5.26.

This proposed amendment of 5.26 is intended to reduce the discomfort caused by the glaring effects of increasingly performant rear-signalling lamps, when seen at short distance, while assuring correct perception of the signals in all cases.

The categories which are allowed to vary of the different lamps are directly mentioned.

The possibility that stop lamps of category S4 can vary independently from the other rear lamps is been moved to paragraph 5.26.3. In addition the rear fog lamps were added to the paragraph.

The environmental conditions which allow a variation are now listed in paragraph 5.26.1. The last two sentence are moved to paragraph 5.26.4.

#### Paragraph 5.26.2.

In addition to the "environmental conditions" where an increase and reduction is allowed "traffic conditions" were added. For traffic conditions only a decrease of the luminous intensity been allowed in the case the speed is equal or less than 20 km/h or the distance is equal or less than 20 m. The intensity decrease may remain active as long

### Paragraph 6.2.7.5.

Paragraph is deleted and the requirements contained in it are reworded and moved to other more suitable paragraphs.

The requirement contained in this paragraph is the one that, having been remained unchanged after the introduction of automatic headlamps switching requirement, caused misunderstanding and different interpretations.

The main work of the Task Force Headlamp Switching was concentrated on this requirement, for manual override, on its clarification and necessary updating in view to allow compatibility with specific circulation exigencies and local in-use requirements.

### Paragraph 6.2.7.6. (old)

Numbering updated (to 6.2.7.5., after deletion of the existing paragraph with same number).

Existing sentence in parenthesis deleted since it was considered redundant.

A sentence, referring to the switching condition of DRL linked to the dipped beam headlamp switching prescribed in the present paragraph, is added, in square brackets since there was not unanimous agreement among the TF HS experts about its effective need. The GRE group of interested experts came to the conclusion that the sentence has to be added to paragraph 6.19.7.4 (new).

A further sentence is added to provide a link with the subsequent sub-paragraphs providing exceptions to the general requirement of this paragraph.

# Paragraph 6.2.7.5.1. (new)

This paragraph was added to provide the exceptions to the general requirements on automatic headlamps switching ON. The requirements in the respective subparagraphs should allow, that country specific "user requirements" from a technical perspective can been realized.

Subparagraph (d) becomes important for vehicles been used in e.g. explosive areas like refineries. It is split into two subparagraphs. Under d (i) it is allowed to switch OFF the headlamps but the lamps mentioned under § 5.11 have to be ON. Under d (ii) it is allowed to switch OFF all light but only under very strict requirements like two deliberate actions for switching OFF and in addition an indication to the driver with an optical and an acoustic or haptic warning. Furthermore the 25 km/h are still in square brackets to be agreed by GRE.

In addition it is important that paragraph 6.2.7.5.1. (new) contains a list of **all** specific requirements of **all** UN R48 contracting parties to allow the realization of the national user requirements. Therefore subparagraph (f) with .... in square brackets is still in to get the final feedback from the Contracting Parties attending the 82. GRE.

# Paragraph 6.2.7.6. (new)

This paragraph contains part of the requirement previously contained in the deleted present paragraph 6.2.7.5.. The dipped beam headlamps manual switching ON was unanimously considered to be necessary, even when the automatic switching is present, to always allow the driver to switch ON the headlamps when so desired or needed, in particular for ambient conditions with reduced visibility (i.e.: daytime fog or rain situations) hardly detectable by the automatic switching sensors or in case of failure of the automatic switching. The mandatory presence of the manual switching (manual override) has been now expressed in a more clear way than before and in a paragraph different from the one mandating the automatic switching, to reduce the danger of confusion and misunderstanding.

### Paragraph 6.2.7.7. (new)

Due to the introduction, in the previous paragraph, of certain conditions allowing exceptions to the automatic switching, it was deemed necessary to specify the obligation to resume it as soon as the conditions allowing for exceptions no longer exist and to mandate the presence of a mean allowing the driver to engage at any time the automatic switching.

### Paragraph 6.2.7.8.

Numbering updated (after introduction of a new paragraph 6.2.7.7.).

The allowance for additional conditions for dipped beam automatic switching has been confirmed by means of a modified wording, aiming to avoid the discrepancy of interpretation pointed out during the TF HS works. The majority of Experts in the TF deem preferable to allow that the additional conditions for automatic switching may be used independently from the basic conditions prescribed in paragraph 6.2.7.5.

# Paragraph 6.9.8.

The TF HS Experts decided to re-introduce the sentence (deleted with Supplement 10 to the 06 series of amendment, as a consequence of other amendments in that supplement) allowing to not switch ON the tell-tale for front position lamps when used in connection with DRL. Same wording of the sentence previously existing has been used, just updating the reference to the involved paragraph.

In addition a small editorial correction has been introduced.

## Paragraph 6.10.8.

The TF HS Experts decided to re-introduce the sentence (deleted with Supplement 10 to the 06 series of amendment, as a consequence of other amendments in that supplement) allowing to not switch ON the tell-tale for front position lamps when used in connection with DRL. Same wording of the sentence previously existing has been used, just updating the reference to the involved paragraph.

# Paragraph 6.19.7.1.

A clarification about the condition for DRL automatic switching ON in relation to the switching condition of headlamp and front fog lamp is introduced for coherence and consistency with the requirements in paragraph 6.19.7.4 (new numbering).

# Paragraph 6.19.7.2.

The conditions for the existing exceptions to the mandatory automatic DRL switching ON were confirmed by the TF HS Experts, with the deletion of condition referred to the vehicle having travelled for more than 100 m with DRL OFF (which was judged an unnecessary burden) and with the change to the speed limit value (for which please refer to the explanation to paragraph 6.2.7.5.1. for the same change). The wording of present sub-paragraphs of paragraph 6.19.7.1., containing the above requirements, has been updated for better clarity.

### Paragraph 6.19.7.3. (new)

This paragraph has been added to specify the obligation to resume the automatic switching as soon as the conditions allowing for exceptions no longer exist.

### Paragraph 6.19.7.4.

Numbering updated, due to the introduction of new paragraph 6.19.7.3.. The wording and the structure of this paragraph has been updated to improve clarity, without changes to the meaning of the requirements.

### Paragraph 6.19.7.5.

Numbering updated, due to the introduction of new paragraph 6.19.7.3..

The TF HS Experts decided to re-introduce the sentence (deleted with Supplement 10 to the 06 series of amendment, as a consequence of other amendments in that supplement) allowing for the possibility to switch ON, together with the DRL, the rear position lamps only and not necessarily all the lamps prescribed in paragraph 5.11.

The European Commission proposed that the rear position lamps "shall" instead of "may" been switched ON together with the Daytime Running Lamps.

The word "shall" is still in square brackets. This should allow that proposals been made which ensure the same safe conditions as reached by mandatory switching ON at least the rear position lamps. Conditions which should been considered e.g. water haze after strong rain behind a vehicle.

# Paragraph 6.19.7.6.

Numbering updated, due to the introduction of new paragraph 6.19.7.3..

During discussion in TF HS it was pointed out that a proposal exists in GRE from 2016 to change from "optional" to "mandatory" the DRL switching OFF or luminous intensity reduction in case of they are located at less than 40 mm from front direction indicator lamps. In addition an editorial improvement of the wording, in line with the one already used in the present paragraph 6.19.7.6. (now renumbered 6.19.7.7., see below) has been introduced.

Please note that an updated proposal on the above subject was presented at the 79<sup>th</sup> GRE session (April 2018) by Germany and Italy; the discussion on this proposal was deferred to the next session (80<sup>th</sup>, October 2018) based on a further updated proposal.

The proposal from OICA considers that when the distance between direction indicators of categories 1a and 1b and dipped-beam headlamps is in the range of 20 mm to 40 mm, it is not required to switch-off nor to dim the dipped-beam headlamps (see prescriptions of paragraph 6.5.3. of Regulation No. 48). Therefore, in order to align the two requirements "dipped beam & direction indicator" versus "daytime running lamp & direction indicator" it should be optional for categories 1a and 1b to be switched off or to be dimmed. This should been allowed when the luminous intensity of the front direction-indicator lamp is 50% higher than the luminous intensity of the Daytime Running Lamps in HV.

# Paragraph 6.19.7.6.

Numbering updated, due to the introduction of new paragraph 6.19.7.3.. Editorial changes in relation to modification to paragraph 2.7.6.

The proposal from OICA differentiates between "totally common apparent surfaces" and "partially common apparent surfaces" of the DRL and the Direction Indicator. Furthermore the spirit of the requirements of new paragraphs 6.19.7.6.2. (a) and (b) were also incorporated. This proposal would align two days designs already on the street.

# Paragraph 12.7. and related sub-paragraphs (new)

The TF HS was established to the aim of simplify and clarify certain aspects of the headlamp and DRL switching and related interaction; as such, the proposal to be prepared by the TF should have been treated as a "supplement" to the present 06 Series of amendments to UN Regulation 48.

However the proposal that the TF HS finally prepared involved more complex changes than originally expected, also requesting technical modification to the vehicles to fulfill the updated requirements. For this reasons, it was deemed more suitable to present it as a new series of amendment.

As new 08 series of amendments the document is then presented with a proposal for transitional provisions, based on the structure suggested by the "General Guidelines for United Nations regulatory procedures and transitional provisions in un Regulations" (document ECE/TRANS/WP.29/1044/Rev.2).

### Annex 2

Editorial changes to update the number of the series of amendments in the marking examples.