

Transmitted by the expert from Italy

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Proposals for changes to
document ECE/TRANS/WP.29/GRE/2009/69

Proposal for draft Supplement 5 to the 04 series of amendments to Regulation No. 48
on the installation of conspicuity markings on certain categories of vehicles

Introduction

During 61st GRE Session Italy presented the informal document GRE-61-11, presently in agenda for 62nd GRE Session as document ECE/TRANS/WP.29/GRE/2009/36, proposing a more flexible approach for the application of requirements for installation of conspicuity marking.

During the same Session Germany announced a proposal for 62nd GRE Session aimed at introduce certain derogation for the application of requirements for installation of conspicuity marking, presently in agenda for 62nd GRE Session as document ECE/TRANS/WP.29/GRE/2009/69.

In the following pages Italy presents an "expansion" of the concept expressed in document ECE/TRANS/WP.29/GRE/2009/36 in the form of changes to the German proposal of document ECE/TRANS/WP.29/GRE/2009/69.

Changes are in ~~striketrough~~ and **bold** characters, while justifications for each of the change proposed are in *Italic* characters.

Paragraph 6.21.1.2. shall read:

6.21.1.2. Mandatory:

6.21.1.2.1. to the rear:

At least line ~~full-contour~~ marking on vehicles exceeding 2,100 mm in width of the following categories:

- (a) N₂ with a maximum mass exceeding 7.5 tons and N₃ (with the exception of chassis-cabs, incomplete vehicles and tractors for semi-trailers)
- (b) O₃ and O₄.

Justification: for conspicuity of wide vehicles their height is not particularly important and, in any case, it is indicated by end-outline marker lamps; consequently we could request the mandatory fitting of line marking only, allowing in any case contour marking installation.

Paragraph 6.21.1.2.2. shall read:

6.21.1.2.2. to the side:

6.21.1.2.2.1. At least line ~~partial-contour~~ marking on vehicles exceeding 6,000 mm in length (including the drawbar for trailers) of the following categories:

- (a) N₂ with a maximum mass exceeding 7.5 tons and N₃ (with the exception of chassis-cabs incomplete vehicles and tractors for semi-trailers)
- (b) O₃ and O₄

Justification: for conspicuity of long vehicles their height is not particularly important and, in any case, it is indicated by end-outline marker lamps; consequently we could request the mandatory fitting of line marking only, allowing in any case contour marking installation.

Paragraph 6.21.1.2.3. shall be deleted.

~~6.21.1.2.3. A line marking may be installed in place of mandatory contour markings, if the shape, structure, design or operational requirements of the vehicle make it impossible to install the mandatory contour marking. If the exterior surfaces of the bodywork are constituted of flexible material, this the mandatory line marking shall be installed on (a) rigid part(s) of the vehicle; if possible, the required contour may be produced by additional conspicuity markings on the flexible material.~~

Justification: deletion of the first sentence is a consequence of the proposed changes to paragraphs 6.21.1.2.1. and 6.21.1.2.2. Second sentence is partly deleted and partly moved to paragraph 6.21.7. "Other requirements".

Paragraph 6.21.1.2.4. shall be renumbered as 6.21.1.2.3. and shall read:

6.21.1.2.4.3. In cases where the manufacturer, ~~after verification by the Technical Service responsible for type approval~~, can prove to the satisfaction of the authority responsible for type approval that it is impossible, [~~due to the shape, structure, design or operational requirements of the vehicle,~~] to comply with all or part of the requirements indicated in paragraphs 6.21.2. to 6.21.7. below, the provisions in paragraph(s) ~~6.21.1.2.4.1 to 6.21.1.2.4.3.~~ **6.21.1.2.3.1 to 6.21.1.2.3.3.** shall apply. The

necessary information shall be indicated in ~~the test report and~~ the communication form.

Justification: paragraph number is changed as a consequence of deletion of paragraph 6.21.1.2.3. First deleted words are superfluous since Technical Services are always allowed to verify the justifications provided by the manufacturer. The second words deleted are not strictly necessary and could be exclusive of other reasons for granting a derogation (for example better perception and uniformity of the conspicuity markings). Last deletion is based on standard text of Regulations (particularly in Reg. 48, where applicable, only the indications in the communication form are requested). In practical application "Communication form" could be intended as "...and related annex" that includes test reports or other documentation where necessary.

Paragraph 6.21.1.2.4.3. shall be renumbered as 6.21.1.2.3.3. and shall read:

6.21.1.2.4.3.3. In the case where the provisions of paragraphs ~~6.21.1.2.4.1. and 6.21.1.2.4.2. 6.21.1.2.3.1. and 6.21.1.2.3.2.~~ above are not applicable, parts of the required conspicuity markings may be omitted, provided that such omissions are restricted to the absolute minimum and that the remaining parts ensure a uniform signalization compatible with the objective of the requirements.^[16/] The necessary information shall be indicated in ~~the test report and~~ the communication form.

~~[16/ — Contracting Parties to the respective Regulations can still require additional signalization system(s) for the vehicle in circulation.]~~

Justification: paragraph number is changed as a consequence of deletion of paragraph 6.21.1.2.3. Deletion of note 16: for circulation purposes on their own territory, Administrations are in any case free to impose specific additional requirements. The introduction of this note could be misinterpreted as allowing the Administration to impose additional requirements also for the registration of the vehicles, that will be no more possible with the application of WVTA for all vehicle categories in EU. Even if Regulation 48 is not an EU legislative instrument we prefer to avoid this possible misunderstanding. Second deletion is based on standard text of Regulations (particularly in Reg. 48, where applicable, only the indications in the communication form are requested). In practical application "Communication form" could be intended as "...and related annex" that includes test reports or other documentation where necessary

Paragraph 6.21.1.3. shall read:

6.21.1.3. Optional:

6.21.1.3.1. 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.

Justification: see justification to following paragraph 6.21.1.4.

Paragraph 6.21.1.4. (new number) shall read:

6.21.1.~~3.2.4.~~ **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, provided that the requirements in paragraphs 6.21.3. to 6.21.7. are met.**

Justification: as a consequence of the proposed changes to paragraph 6.21.1.2.1. and 6.21.1.2.2. partial or full contour markings are optional. Consequently we deem preferable to change the numbering of paragraph 6.21.1.3.2. in such a way that requirements of paragraphs 6.21.3. to 6.21.7 clearly apply also to optional conspicuity markings.

Paragraph 6.21.3. shall read:

6.21.3. Arrangement

The ~~conspicuity~~ **line** markings shall be as close as practicable to horizontal ~~and vertical~~, compatible with the shape, structure, design and operational requirements of the vehicle; ~~if this is not possible~~, the full or partial contour markings, when fitted, **shall be as close as practicable to horizontal and vertical, compatible with the shape, structure, design and operational requirements of the vehicle; if this is not possible**, shall follow as close as practicable the contour of the outer shape of the vehicle.

Furthermore, the conspicuity markings shall be spaced as evenly as possible over the horizontal dimensions of the vehicle such that the total length or width of the vehicle can be identified.

Justification: change is a consequence of the proposed changes to paragraphs 6.21.1.2.1. and 6.21.1.2.2.

Paragraph 6.21.4.1.3. shall read:

6.21.4.1.3. However, if the manufacture can prove to the satisfaction of the authority responsible for type approval that ~~the criteria as prescribed in paragraph 6.21.1.2.3. and 6.21.1.2.4., are met~~, **it is impossible to comply with the requirement of paragraph 6.21.4.1.2. above** the cumulative length may be reduced, provided that the signalization is uniform and clear to achieve a sufficient perception of the vehicle dimension in width.

Justification: this possible derogation is referred to paragraph 6.21.4.1.2. requirement, so it is simpler to refer to this paragraph directly.

Paragraph 6.21.4.2.3. shall read:

6.21.4.2.3. However, if the manufacture can prove to the satisfaction of the authority responsible for type approval, that ~~the criteria as prescribed in paragraph 6.21.1.2.3. and 6.21.1.2.4., are met~~, **that it is impossible to comply with the requirement of paragraph 6.21.4.2.2. above** the cumulative length may be reduced, provided that the signalization is uniform and clear to achieve a sufficient perception of the vehicle length.

Justification: same comment as for paragraph 6.21.4.1.3.

Paragraph 6.21.4.3.1. shall read:

6.21.4.3.1. Line markings and contour markings lower element(s), when fitted :

As low as practicable within the range:

Minimum: not less than 250 mm above the ground.

Maximum: not more than 1,500 mm above the ground.

However, a maximum mounting height of 2,500 mm may be accepted where the shape, structure, design or operational conditions of the vehicle prevent compliance with the maximum value of 1,500 mm or, if necessary, to fulfil the requirements of paragraphs 6.21.4.1.2., 6.21.4.1.3., 6.21.4.2.2. and 6.21.4.2.3., or the horizontal

positioning of the line marking or the lower element(s) of the contour marking.
The necessary information shall be indicated in ~~the test report and~~ the communication form.

Justification: the change is based on standard text of Regulations (particularly in Reg. 48, where applicable, only the indications in the communication form are requested). In practical application "Communication form" could be intended as "...and related annex" that includes test reports or other documentation where necessary.

Paragraph 6.21.5. and related sub-paragraphs shall read:

6.21.5. Visibility

The conspicuity marking shall be considered visible, if at least 80 per cent of the illuminating surface of the installed marking is visible when viewed by an observer positioned at any point within the observation planes defined below. ~~The distance of 100m as defined below prescribed the geometrical conditions, the test may be carried out in a distance not shorter than 25 m:~~

6.21.5.1. for rear conspicuity markings (see Annex 11, Figure 1) the observation plane is perpendicular to the longitudinal axis of the vehicle situated ~~100~~ 25 m from the extreme end of the vehicle and bounded by:

6.21.5.1.1. in height, by two horizontal planes 1.0 m and 3.0 m respectively above the ground,

6.21.5.1.2. in width, by two vertical planes which form an angle of 4° outwards from the vehicle's median longitudinal plane and which pass through the intersection of the vertical planes parallel to the vehicle's median longitudinal plane delimiting the vehicle's overall width, and the plane perpendicular to the longitudinal axis of the vehicle that delimits the end of the vehicle.

6.21.5.2. for side conspicuity markings (see Annex 11, figure 2) the observation plane is parallel to the longitudinal median plane of the vehicles situated ~~100~~ 25 m from the extreme outer edge of the vehicle and bounded by:

6.21.5.2.1. in height, by two horizontal planes 1.0 m and 3.0 m respectively above the ground,

6.21.5.2.2. in width, by two vertical planes which form an angle of 4° outwards from a plane perpendicular to the vehicle's longitudinal axis and which pass through the intersection of the vertical planes perpendicular to the vehicle's longitudinal axis delimiting the vehicle's overall length and the extreme outer edge of the vehicle.

Justification: to paragraph 6.21.5. in general.

We reject the proposed change from 25 to 100 m for the visibility of the signalization since it is not demonstrated that at this distance the reflecting material is efficient (sufficiently visible). There is no sense to request the geometric visibility of a signalization at a distance from which the signalization do not reflect sufficient amount of light. In Regulation 104 the luminous intensity of the material is tested at the normal distance of 25 m so we shall maintain this value also in Regulation 48.

On the contrary we agree with the reduction from 15° to 4 ° for the geometric visibility angle for the same reason above expressed of closer (even if not total) compatibility with the photometric requirements tested during the approval of the material.

Italy will consider changes to the geometric visibility requirements only where the geometric visibility requirements in Regulation 104 will be changed in such a way that the reflected light intensity is verified in conditions compatibles with the requirements for geometric visibility foreseen for installation, as it is for active signalizations.

Paragraph 6.21.7.2. shall read:

6.21.7.2. In the case **of a where** partial contour marking **are fitted**, each upper corner shall be described by two lines at 90° to each other and each at least 250 mm in length; if this is not possible, the marking shall follow as close as practicable the contour of the outer shape of the vehicle,

Justification: *the change is a consequence of the proposed changes to paragraphs 6.21.1.2.1. and 6.21.1.2.2.*

Add new paragraph 6.21.7.5. as follows:

6.21.7.5. If the exterior surfaces of the bodywork are constituted of flexible material, the mandatory line marking shall be installed on (a) rigid part(s) of the vehicle.

Justification: *the text above is part of the text proposed by Germany for paragraph 6.21.1.2.3.; we moved it here since we deem this location more correct for this requirement.*

In Annex 1, paragraph 10.7. shall read:

10.7. Comments regarding conspicuity marking (according to paragraphs 6.21.1.2.4~~3.~~, ~~6.21.1.2.5.~~ and 6.21.4.3.1. of the Regulation).

Justification: *number of paragraphs 6.21.1.2.4. is changed in 6.21.1.2.3.; paragraph 6.21.1.2.5. doesn't exist anymore in the proposal.*

In Annex 11 "VISIBILITY OF CONSPICUITY MARKINGS TO THE REAR AND SIDE OF A VEHICLE" figure for observation distance shall be maintained at **25 m**. On the contrary it is acceptable to change to 4° the angle of observation.

Justification: *see justification to paragraph 6.21.5. above*

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