AGREEMENT CONCERNING THE ADOPTION OF UNIFORM TECHNICAL
PRESCRIPTIONS FOR WHEELED VEHICLES, EQUIPMENT AND PARTS
WHICH CAN BE FITTED AND/OR BE USED ON WHEELED VEHICLES AND
THE CONDITIONS FOR RECIPROCAL RECOGNITION OF APPROVALS
GRANTED ON THE BASIS OF THESE PRESCRIPTIONS. GENEVA, 20 MARCH
1958

REGULATION NO. 104. UNIFORM PROVISIONS CONCERNING THE
APPROVAL OF RETRO-REFLECTIVE MARKINGS FOR HEAVY AND LONG
VEHICLES AND THEIR TRAILERS
15 JANUARY 1998

PROPOSAL OF AMENDMENTS

The Secretary-General of the United Nations, acting in his capacity as depositary,
communicates the following:

On 14 June 1999, the Secretary-General received from the Administrative Committee of the
above Agreement, pursuant to article 12 (1) of the Agreement, amendments proposed to Regulation.
No. 104.

A copy, in the English and French languages, of the document containing the text of the
proposed amendments is transmitted herewith (supplement 1) (doc. TRANS/WP.29/674).

The Secretary-General wishes to draw attention to article 12 (2) and (3) of the Agreement
which read as follows:

"2. An amendment to a Regulation will be considered to be adopted unless, within a period of
six months from its notification by the Secretary-General, more than one-third of the Contracting Parties
applying the Regulation at the time of notification have informed the Secretary-General of their
disagreement with the amendment. If, after this period, the Secretary-General has not received
declarations of disagreement of more than one-third of the Contracting Parties applying the Regulation,
the Secretary-General shall as soon as possible declare the amendment as adopted and binding upon
those Contracting Parties applying the Regulation who did not declare themselves opposed to it. When
a Regulation is amended and at least one-fifth of the Contracting Parties applying the unamended
Regulation subsequently declare that they wish to continue to apply the unamended Regulation, the
unamended Regulation will be regarded as an alternative to the amended Regulation and will be
incorporated formally as such into the Regulation with effect from the date of adoption of the
amendment or its entry into force. In this case the obligations of the Contracting Parties applying the
Regulation shall be the same as set out in paragraph 1.

3. Should a new Contracting Party accede to this Agreement between the time of the

Attention: Treaty Services of Ministries of Foreign Affairs and of international organizations concerned.
notification of the amendment to a Regulation by the Secretary-General and its entry into force, the Regulation in question shall not enter into force for that Contracting Party until two months after it has formally accepted the amendment or two months after the lapse of a period of six months since the communication to that Party by the Secretary-General of the proposed amendment.”

13 July 1999
ECONOMIC COMMISSION FOR EUROPE
INLAND TRANSPORT COMMITTEE

Working Party on the Construction of Vehicles

DRAFT SUPPLEMENT 1 TO REGULATION No. 104

(Retro-reflective markings for heavy and long vehicles and their trailers)

Note: The text reproduced below was adopted by the Administrative Committee (AC.1) of the amended 1958 Agreement at its eleventh session, following the recommendation by the Working Party at its one-hundred-and-seventeenth session. It is based on document TRANS/WP.29/1999/11, not amended (TRANS/WP.29/663, para. 123).
Paragraph 5.4.3.3., correct to read (French only).

Insert a new paragraph 5.4.3.4., to read:

"5.4.3.4. "D/E" for materials for distinctive markings or graphics as base or background in printing process for fully coloured logos and markings of class "E" in use which fulfil the requirements of class "D" materials."

Paragraph 7.2., amend to read:

"7.2. Advertising, consisting of retro-reflective logos, distinctive markings or letters/characters has to be decent.

It may consist of marking materials of class "D" if the total retro-reflective area is less than 2 m²; if the total retro-reflective area is at least 2 m² class "E" shall be used."

Insert a new paragraph 7.2.3., to read:

"7.2.3. White retro-reflective marking materials intended as base or background in printing processes for fully coloured logos and markings of class "E" in use, without unprinted blank areas, may fulfil the requirements in annex 7, table 2, for class "D" materials and must be marked as class "D/E"."

Annex 6.

Paragraph 1., amend to read:

"1. Retro-reflective marking materials (class C) shall be white, yellow or red. Retro-reflective distinctive markings and/or graphics (classes D and E) may be of any colour."
Paragraph 2. Table 1, add a new row, to read:

<table>
<thead>
<tr>
<th>Colour</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Luminance factor β [1]</th>
</tr>
</thead>
<tbody>
<tr>
<td>x [1]</td>
<td>0.690</td>
<td>0.595</td>
<td>0.560</td>
<td>0.650</td>
<td>≥ 0.03</td>
</tr>
<tr>
<td>red</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>y [1]</td>
<td>0.310</td>
<td>0.315</td>
<td>0.350</td>
<td>0.350</td>
<td></td>
</tr>
</tbody>
</table>

Paragraph 3. Table 2, add a new row to read:

<table>
<thead>
<tr>
<th>Colour</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>x [1]</td>
<td>0.720</td>
<td>0.735</td>
<td>0.665</td>
<td>0.643</td>
</tr>
<tr>
<td>red</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>y [1]</td>
<td>0.258</td>
<td>0.265</td>
<td>0.335</td>
<td>0.335</td>
</tr>
</tbody>
</table>

Annex 7.

Paragraph 1. Amend to read:

"... R' in candelas per m² per lux (cd.m⁻².lux⁻¹) of the retro-reflective areas in new condition shall be at least as indicated in table 1 for yellow and white materials and at least as indicated in table 2 for red materials."
Insert a new table 2, to read:

<table>
<thead>
<tr>
<th>Observation angle $\alpha$ [$^\circ$]</th>
<th>Entrance angle $\beta$ [$^\circ$]</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\alpha = 0.33^\circ$ (20')</td>
<td>$\beta_1$ 0 0 0 0</td>
</tr>
<tr>
<td></td>
<td>$\beta_2$ 5 20 30 40</td>
</tr>
<tr>
<td>Colour</td>
<td>red</td>
</tr>
<tr>
<td></td>
<td>120 60 30 10</td>
</tr>
</tbody>
</table>

Annex 9.

Insert new paragraphs 1.1.1. and 1.1.2., to read,

"1.1.1. Those installed on the rear of vehicles may be red in colour.
1.1.2. Those installed on the sides of vehicles shall be white or yellow in colour."

Insert new paragraph 1.5., to read:

"1.5. the distance between the retro-reflective marking materials fitted to the rear of a vehicle and each obligatory stop lamp should be greater than 200 mm."

Insert new paragraphs 2.1.1 and 2.1.2., to read,

"2.1.1. Contour markings installed on the rear of vehicles may be red in colour.
2.1.2. Contour markings installed on the sides of vehicles shall be white or yellow in colour."

Insert new paragraph 2.4., to read:

"2.4. The distance between the retro-reflective marking materials fitted to the rear of a vehicle and each obligatory stop lamp should be greater than 200 mm."

Paragraph 3.2.4., correct to read (French only).