ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on Lighting and Light-Signalling (GRE)
(Fifty-second session, 30 March - 2 April 2004, agenda item 3.)

DRAFT SUPPLEMENT 25 TO THE 03 SERIES OF AMENDMENTS) TO REGULATION No. 37
(Filament lamps)

Transmitted by the expert from Germany

Note: The text reproduced below was prepared by the expert from Germany, in order to clarify the situation of the conformity of production (COP) procedure in relation to “Colour Endurance Test” as introduced into Regulation No. 37 by document TRANS/WP.29/935. The modifications are marked in bold characters.

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Note: This document is distributed to the Experts on Lighting and Light-Signalling only.
A. PROPOSAL

Annex 7, amend to read:

"Annex 7

SAMPLING AND COMPLIANCE LEVELS FOR MANUFACTURER TEST RECORDS

Table 1 - Characteristics

<table>
<thead>
<tr>
<th>Grouping of characteristics</th>
<th>Grouping */ of test records between lamp types</th>
<th>Minimum 12 monthly sample per grouping */</th>
<th>Acceptable level of non-compliance per grouping of characteristics (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marking, legibility and durability</td>
<td>All types with the same external dimensions</td>
<td>315</td>
<td>1</td>
</tr>
<tr>
<td>Bulb quality</td>
<td>All types with the same bulb</td>
<td>315</td>
<td>1</td>
</tr>
<tr>
<td>Colour of the bulb</td>
<td>All coloured bulbs of the same design</td>
<td>315</td>
<td></td>
</tr>
<tr>
<td>External lamp dimensions (excluding cap/base)</td>
<td>All types of the same category</td>
<td>200</td>
<td>1</td>
</tr>
<tr>
<td>Dimensions of caps and bases</td>
<td>All types of the same category</td>
<td>200</td>
<td>6.5</td>
</tr>
<tr>
<td>Dimensions related to internal elements **/</td>
<td>All lamps of one type</td>
<td>200</td>
<td>6.5</td>
</tr>
<tr>
<td>Initial readings, watts and lumens **/</td>
<td>All lamps of one type</td>
<td>200</td>
<td>1</td>
</tr>
<tr>
<td>Colour endurance test</td>
<td>All coated lamps of one coating technology</td>
<td>20 ***/</td>
<td>1</td>
</tr>
</tbody>
</table>

/*/ The assessment shall in general cover series production filament lamps from individual factories. A manufacturer may group together records concerning the same type from several factories, provided these operate under the same quality system and quality management.

**/ In case a filament lamp has more than one inner element (filament, shield) the grouping of characteristics (dimensions, watts, lumens) applies to each element separately.

/***/ Representative distribution over categories, worst case, meaning a group of coated lamps using the same technology within the categories with the toughest conditions for the coating."

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B. JUSTIFICATION

According to document TRANS/WP.29/935

"DRAFT SUPPLEMENT 23 TO THE 03 SERIES OF AMENDMENTS
to REGULATION No. 37"

the colour endurance test for lamps with coated bulbs is introduced as a mandatory
requirement and will enter into force in the first quarter of 2004.

The relevant amendment is:

"Paragraph 3.6.3., amend to read:

"......... a point of choice on the Planckian locus (IEC Publication 15.2
Colorimetry, 1986). Filament lamps for use in light signalling devices shall
meet the requirements as specified in paragraph 2.4.2 of IEC Publication
60809, Amendment 3 to Edition 2."

This test duration in total is 14 days. Therefore the application of the same COP requirements
for colour measurements of lamps in general (see Table 1 of annex 7) is unjustified and
expensive.

Consequently specific COP conditions are necessary, as proposed in the last line of Table 1 in
annex 7 to Regulation No. 37.

The minimum twelve monthly sample and grouping per 20 lamps are proposed in order to
ensure statistical significance at 1 per cent level.

"Worst case" means, that within a grouping of coated lamps using the same technology, the
categories with the toughest conditions for the coating should be tested.

In the opinion of the experts from Germany, this proposal seems to be an acceptable practical
way to solve this problem.