ECONOMIC COMMISSION FOR EUROPE
INLAND TRANSPORT COMMITTEE

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

Working Party on Pollution and Energy (GRPE)
(Forty-third session, 15-18 January 2002, agenda item 4.5.)

PROPOSAL FOR DRAFT AMENDMENTS (SUPPLEMENT 1) TO REGULATION No. 110
(Specific components for CNG)

Transmitted by the Expert from Italy

Note: The text reproduced below was prepared by the Italian delegation, in order to amend the text of the Regulation.

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Note: This document is distributed to the Experts on Pollution and Energy only.

GE.01-
A. PROPOSAL

Figure 1-2, Tests applicable to specific Classes or components, (excluding cylinders),

Column concerning "Ozone Ageing", replace "A" with "X" for Classes 0, 1 and 3 only;
Column concerning "CNG Compatibility", replace "A" with "X" for Classes 0 to 4;
Column concerning "Dry-Heat Resistance", replace "A" with "X", for Classes 0, 1 and 3 only.

Annex 5O, amend to read:

"ANNEX 5O
OPERATING TEMPERATURES

<table>
<thead>
<tr>
<th>Engine compartment</th>
<th>Assembled on the engine</th>
<th>On board</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate</td>
<td>-20 °C - 105 °C</td>
<td>-20 °C - 120 °C - 20 °C - 85 °C</td>
</tr>
<tr>
<td>Cold</td>
<td>-40 °C - 105 °C</td>
<td>-40 °C - 120 °C - 40 °C - 85 °C</td>
</tr>
</tbody>
</table>

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Annex 5G, amend to read:

"ANNEX 5G
OZONE AGEING

1. The test has to be in compliance with ISO 1431/1.

   The test piece, which has to be stressed to 20 per cent elongation shall be exposed to air at 40 °C with an ozone concentration of 50 parts per hundred million during 72 hours.

2. No cracking of the test piece is allowed.

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B. JUSTIFICATION

Re. Fig 1-2: In the original text (fig. 1-2) the tests 5D, 5G and 5F are marked with "A" meaning "as applicable". With this proposal it is required to change into "X", i.e. "applicable", the test 5D (CNG compatibility) for all components in contact with the gas, and the tests 5G (Ozone ageing) and 5F (Dry-Heat Resistance) for all components classified in high pressure (> 450 kPa).

Re. Annex 5O: The car-manufacturers adopt normally different temperature values for different locations in the engine compartment. For instance the battery, installed in the engine compartment, is designed for only 90 °C.

Re. Annex 5G: Same provisions have been adopted in Regulation No. 67, 01 series of amendments for LPG components (see Annex 15 paragraph 14.1., as amended by Corrigendum 1 to the 01 series of amendments (TRANS/WP.29/754)."