K coefficient of equipment in service

Transmitted by the German Government

I. Initial situation/Justification

1. Section 5 of Annex 1, Appendix 2 of the ATP specifies the two different testing procedures that the competent authority may apply to test equipment in service: measurement of the K coefficient in accordance with paragraphs 2.1.1 to 2.3.2 or assessment of the equipment by an expert on the basis of a visual inspection and technical expertise.

2. Further details are given in subsection 5.1. Subsection 5.3 "Decisions" states that the results of the measurement of the K coefficient must be "satisfactory". The equipment may then be kept in service for a further period of six years in its initial class. If the expert’s conclusions after the visual inspection are favourable, the equipment may be kept in service for a further period of three years in its initial class. At present, the ATP contains no further definition of the term "satisfactory".

3. Moreover, the initial K coefficient (e.g. from the type test) of 0.40 W/m².K or 0.70 W/m².K at the time of the equipment’s entry into service may not be used as a reference value given that the insulation of the equipment is subject to a normal physical aging process. For the majority of semi-trailers, the initial K coefficient of the type test lies between 0.35 W/m².K and 0.40 W/m².K.

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1 Submitted in accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106; ECE/TRANS/2010/8, programme activity 02.11).
4. In order to ensure equitable conditions between transport operators and their safe operation in ATP member countries, it is suggested that the K values should be fixed after 6 and 9 years.

II. Proposal

5. It is proposed to add the following text and table at the end of subsection 5.3 (i):

"The results shall be deemed to be satisfactory if the following values for the K coefficient are not exceeded by equipment in service:

<table>
<thead>
<tr>
<th>Years in service</th>
<th>Initial class IR</th>
<th>K coefficient (≤) [W/m².K]</th>
<th>Initial class IN</th>
<th>K coefficient (≤) [W/m².K]</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>0.50</td>
<td>0.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>0.60</td>
<td>1.10</td>
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</tbody>
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