Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Perishable Foodstuffs

Sixty-seventh session
Geneva, 25-28 October 2011
Item 5 (a) of the provisional agenda
Proposals of amendments to the ATP: Pending proposals

Acceptable changes to insulated equipment

Transmitted by the German Government

I. Initial situation/Justification

1. Annex 1, Appendix 1, Section 6 (c) of the ATP stipulates that a unit of thermally insulated equipment shall be regarded as being of the same type as the unit tested, if it satisfies the minimum conditions in (i), (ii), (iii) and (iv). The third requirement under (i) requires that the interior fittings shall be identical or simplified.

2. Given the variety of customer’s special requirements and the broad range of variants on the market, type approval cannot cover all possible variants of insulated equipment. These may include but are not limited to:
   - Lamps mounted flush with the surface or mounted onto the surface;
   - Cargo securing rails;
   - Lashing rings;
   - Double deck rails;
   - Wheel arches;
   - Vents and openings; and
   - Ducts for refrigerant pipelines or cables.

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).
3. To take account of normal market practices and in order to simplify ATP approval procedures for the benefit of the parties involved, the existing wording should be revised.

II. Proposal

4. It is proposed to amend Annex 1, Appendix 1, Section 6 (c) as follows:

"(c) A unit shall not be regarded as being of the same type as the unit tested unless it satisfies the following minimum conditions:

(i) If it is insulated equipment, in which case the reference equipment may be insulated, refrigerated, mechanically refrigerated or heated equipment:

The construction shall be comparable and, in particular, the insulating material and the method of insulation shall be identical;

The thickness of the insulating material shall be not less than that of the reference equipment.

The number of doors and the number of hatches or other openings shall be the same or less; and

The inside surface area of the body shall not be as much as 20 % greater or smaller.

Interior fittings shall satisfy the following criteria:

The reference equipment shall have been type tested with interior fittings.

Where interior fittings are changed it shall be verified whether this leads to a reduction or an increase in the volume of insulating material. A reduction of internal fittings which leads to an increase in the volume of insulating material compared to the reference equipment is acceptable in any case.

In cases where insulating material is reduced, the minimum thickness of insulating material in the part of the wall where the fitting is mounted shall be at least 20mm.

An enhancement of internal fittings which leads to a reduction in the volume of insulating material is acceptable in cases where the initial K value of the reference equipment is 0.38 W/m².K or better for heavily insulated equipment or 0.66 W/m².K or better for normally insulated equipment and the reduction of the volume of insulating material in new equipment does not exceed the values given in the following table:

<table>
<thead>
<tr>
<th>Reduction in volume of insulating material</th>
<th>Initial K value ≤ 0.35 W/m².K for IR</th>
<th>Initial K value ≤ 0.63 W/m².K for IN</th>
<th>Initial K value &lt;0.38 W/m².K for IR</th>
<th>Initial K value &lt;0.66 W/m².K for IN</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 10 %</td>
<td>≤ 0.35 W/m².K for IR</td>
<td>≤ 0.63 W/m².K for IN</td>
<td>&lt;0.38 W/m².K for IR</td>
<td>&lt;0.66 W/m².K for IN</td>
</tr>
</tbody>
</table>

2 Large openings such as doors, hatches or air flaps may be replaced by two or more openings of smaller size provided that the total perimeter of the seal is equal or less.
The reference volume of insulating material and the reduction in volume of insulating material resulting from enhancement of internal fittings shall be calculated by the manufacturer and submitted to the competent authority for approval."