



# **Economic and Social Council**

Distr.: General 18 July 2013

Original: English

# **Economic Commission for Europe**

Inland Transport Committee

# Working Party on the Transport of Perishable Foodstuffs

Sixty-ninth session Geneva, 8-11 October 2013 Item 5 (a) of the provisional agenda Proposals of amendments to the ATP: Pending proposals

# Two proposals to amend the ATP

Transmitted by the Government of the Netherlands

#### Proposal for test and approval of a refrigerated thermal I. appliance working on liquefied gas separate from the insulated body it will be used on

mmary	From a formal maint of airs toting afrefriguented
Executive summary:	thermal appliances working on liquefied gas separated from the insulated body is not foreseen in ATP. There are no arguments to withhold the advantages of separate testing of these appliances.
Action to be taken:	Inclusion of new provisions.
<b>Related documents:</b>	ECE/TRANS/WP.11/2011/15, INF.3 (67th session)

# Introduction

1. The rationale in ATP is to test and approve equipment. Equipment consists of the thermal appliance in combination with the insulated body it will be used on. An exception is made for mechanically refrigerated thermal appliances in paragraph 3.2.6 of Annex1, Appendix 2 which can be tested and approved separately from the insulated body.

Refrigerated thermal appliances working on liquefied gas can, from a technical point 2. of view, also be tested and approved separately. However, Annex 1, Appendix 2, section



GE.13-

3.1 dealing with refrigerated equipment does not allow for this in the same way that it is regulated for mechanically refrigerated equipment in paragraphs 3.2.6 and 3.2.7.

#### **Proposal**

3. Introduce new paragraphs 3.1.7 and 3.1.8 to read as follows:

"3.1.7 If a refrigerating appliance of paragraph 3.1.3 (c) with all its accessories has undergone separately, to the satisfaction of the competent authority, the test in section 4 of this appendix to determine its effective refrigerating capacity at the prescribed reference temperatures, the transport equipment may be accepted as refrigerated equipment. The effective refrigerating capacity of the appliance in continuous operation exceeds the heat loss through the walls for the class under consideration, multiplied by the factor 1.75. The capacity of the receptacles containing the refrigerant shall be adjusted to take the factor 1.75 into account.

3.1.8 If the refrigerating appliance is replaced by a unit of a different type, the competent authority may:

(a) require the equipment to undergo the determinations and verifications prescribed in paragraphs 3.1.3 to 3.1.5; or

(b) satisfy itself that the effective refrigerating capacity of the new refrigerating appliance is, at the temperature prescribed for equipment of the class concerned, at least equal to that of the unit replaced; or

(c) satisfy itself that the effective refrigerating capacity of the new refrigerating appliance meets the requirements of paragraph 3.1.7."

#### Justification

4. There is no technical argument that would make testing of refrigerated appliances working on liquefied gas separate from the insulated body not feasible. The capacity is related to the outflow of gas in the load area for direct injected systems or to the capacity of the evaporator and regulator in indirect systems.

5. Indirect systems in particular are becoming ever more popular because of the silent operation, absence of direct pollution and low weight. Not to be able to use separate testing and approving will result in a test for every type of equipment coming on the market.

6. The test for refrigerated thermal appliances working on liquefied gas in paragraph 3.1.3 (c) describes a cooling down phase followed by a phase where there is equilibrium between the heat transfer through the walls with an additional thermal load equivalent to 35% of the heat transfer through the walls and the refrigerating capacity of the thermal appliance. The equilibrium phase shall be continued for a minimum of 12 hours during which the "refrigerant" (liquefied gas) shall not be "replaced" (refilled) (see 3.1.3 (c) last paragraph). The conclusion is that the capacity of the receptacle(s) containing the liquefied gas should be sufficient for 12 hours of continuous operation.

7. To be consistent, the capacity of the receptacles for the refrigerant (liquefied gas) needs to be enlarged if the safety factor of 1.75 for separately tested thermal appliances is used instead of the 35% additional heat load when testing in combination with the particular insulated body. Whether the obligation to be able to have a continuous operation for 12 hours is realistic for each piece of individual equipment is another discussion in principle.

Cost:Costs will be reduced.Feasibility:No problems are expected. No transitional period is required.Enforceability:No problems are expected.

# **II.** Proposal for an amendment of ATP concerning the approval of bodies with flexible walls

Summary	
Executive summary:	The provisions of ATP are not precise enough to prevent approval of insulated bodies with flexible walls. During the 68 <sup>th</sup> session, WP.11 expressed its opinion that approval of such bodies was not intended.
Action to be taken:	Amend the wording to prevent approval.
<b>Related documents:</b>	ECE/TRANS/WP.11/2012/3.

# Introduction

8. Type-approvals and ATP certificates of approval have been issued for insulated bodies with flexible side walls also known as "curtain sided bodies". In document ECE/TRANS/WP.11/2012/3, the Netherlands asked the opinion of WP.11 whether the approval of curtain-sided bodies should be allowed. The opinion of WP.11 was that these bodies were not intended to be approved (see ECE/TRANS/WP.11/226, paragraph 34).

# **Proposal 1**

9. Introduce the word "rigid" in paragraph 1 of Annex 1 to read (new wording in *italic* script <u>underlined</u>):

"<u>Insulated equipment.</u> Equipment of which the body is built with <u>*rigid*</u> insulating walls, doors, floor and roof, by which...."

# **Proposal 2**

10. Introduce a new paragraph 5 in Annex 1:

#### "5. Transitional measures

5.1 Insulated bodies with flexible walls which first entered into service before the amendment of paragraph 1 of Annex 1 came into force (xx-xx-xxxx) may continue to be used for the carriage of perishable foodstuffs of the appropriate classification until the validity of the ATP certificate of approval expires. The validity of the ATP certificate shall not be extended."

#### Justification

11. In paragraph 1 of Annex 1 walls are not specifically defined as being flexible or rigid. As a result some testing stations/approval authorities have made the interpretation that flexible walls or insulated curtains are not prohibited.

12. Flexible walls can create a problem with airtightness during movement of the body and the limited life span of the insulation of the walls due to damage, movement (flapping during transport) and folding during loading/unloading.

13. Because the ATP was not precise enough to prevent this interpretation, the users of these insulated bodies should be allowed to write-off their equipment and have time to replace their equipment.

14. For this reason, transitional provisions are proposed.

- Cost: Low; users will have to write-off equipment early but are still allowed to use this equipment for a period to facilitate economic write-off. In daily life, side curtains are prone to wear and tear and this limits the useful life of the equipment anyway.
- Feasibility: No problems are expected.
- Enforceability: Precise wording will prevent this interpretation and improve enforceability.