

**Economic and Social Council**

Distr.: General  
24 July 2017  
English  
Original: French

**Economic Commission for Europe****Inland Transport Committee****Working Party on the Transport of Perishable Foodstuffs****Seventy-third session**

Geneva, 10-13 October 2017

Agenda item 5 (b)

**Proposals of amendments to ATP: New proposals****Proposal to amend annex 1, appendix 2, paragraph 6.2, with  
a procedure for the efficiency testing of in-service  
independent, multi-temperature equipment****Transmitted by the Government of France***Summary*

**Executive summary:** ATP was amended in 2013 to cover multi-compartment, multi-temperature equipment. In a discussion in 2016, a clear majority emerged in favour of a test method appropriate for multi-temperature reversible equipment.

This proposal includes elements of the proposal made by the Netherlands in 2016, in slightly adapted form, for ease of reading.

**Action to be taken:** Amend annex 1, appendix 2.

**Related documents:** ECE/TRANS/WP.11/2016/21



## Introduction

1. ATP was amended in 2013 to cover multi-compartment, multi-temperature equipment.
2. Since then, France has presented a test method for reversible multi-temperature equipment based on the test method for independent mono-temperature mechanically refrigerated equipment, with the intention of complementing that test method with a simple compartment reversibility test, thus making it possible to reduce the length of the test while maintaining its relevance.
3. In 2016, a French proposal that took up previous technical comments was presented to the Working Party. At the same time, the Netherlands submitted a draft amendment that, in technical terms, would have the same effect. The representative of France agreed to vote on the proposal contained in ECE/TRANS/WP.11/2016/21, annex 3, instead of the French proposal, as that text had been produced by an informal working group led by the representative of the Netherlands. The voting on the proposal was 9 in favour (Czech Republic, Denmark, Finland, France, Italy, Morocco, Poland, Portugal and United Kingdom) and 1 against (Germany). The representative of Germany explained that, due to the fact that no agreement was reached on the subject of marking, he could not vote in favour of the proposal.
4. In the light of the unanimous support for the adoption of the technical clauses of the proposal contained in document ECE/TRANS/WP.11/2016/21, annex 3, drawn up by the Netherlands, and its similarity with the original French proposal, France wishes to propose this amendment, which includes elements of the proposal from the Netherlands, in slightly adapted form, for ease of reading.

## I. Proposal

5. The proposed procedure is the same as that used for mono-temperature equipment, with the addition of extra reversibility tests when the temperatures of the different compartments can be changed.
6. It is based on document ECE/TRANS/WP.11/2016/21, annex 3, drawn up by the Netherlands, which France had endorsed in 2016, with some editorial improvements.

## II. Amendments

7. Introduce a new subparagraph (iii) in annex 1, appendix 2, paragraph 6.2, of ADR, to read as follows: (for mechanically refrigerated equipment only):

“(iii) Multi-compartment equipment

The test prescribed in (i) shall be conducted simultaneously for all compartments. During the tests, if the dividing walls are removable, they shall be positioned such that the volumes of the compartments correspond with the maximum refrigeration demand.

Measurements shall be taken until the warmest temperature measured by one of the two sensors located inside each compartment matches the class temperature.

For multi-compartment equipment whose compartment temperatures may be modified, a supplementary reversibility test shall then be conducted:

The temperatures of the compartments shall be selected in such a way that adjacent compartments are, to the extent possible, at different temperatures during the test. Certain compartments shall be brought to the class temperature (-20 °C) while others shall be at 0 °C. Once such temperatures are reached, the temperature settings shall be reversed for each compartment, thus bringing the compartments that were at 0 °C to -20 °C and those that were at -20 °C to 0 °C.

It shall be verified that the compartments at 0 °C have proper maintenance of the temperatures at  $0.0\text{ °C} \pm 3\text{ °C}$  for at least 10 minutes when the other compartments are at -20 °C. Subsequently, the settings for each of the compartments shall be reversed and the same verifications shall be conducted.

In the case of equipment fitted with a heating function, the tests shall begin after the efficiency test when the temperature is -20 °C. Without opening doors, the compartments whose settings had been set at 0 °C shall be warmed, while the other compartments are kept at a temperature of -20 °C. When the control criterion is met, the compartments' settings shall be reversed. There shall be no time limit to carry out these tests.

In the case of equipment without a heating function, it shall be permitted to open the doors of the compartments to expedite the temperature rise of the compartments in question.

The equipment shall be considered compliant if:

- For each compartment, the class temperature has been reached within the time limit shown in the table in (i). To define this time limit, the lowest (coldest) mean outside temperature shall be selected from the two sets of measurements taken with the two outside sensors; and
- The additional tests mentioned in (iii), when required, are satisfactory.”

### III. Justification

Cost	The cost of this test is very similar to that of the test for mono-temperature equipment, although slightly higher as it requires more sensors and a longer time to set up the instruments and take readings.
Feasibility	This proposal is based on the test method for mono-temperature independent equipment. It adds only one test for the reversibility of compartments, thus making it possible to limit the length of the test while retaining all its relevance.
Environmental impact	There will be a significant beneficial environmental impact, as maintenance can be made compulsory, thus leading to better machine performance.
Enforceability:	