Proposal to amend annex 1, appendices 2 and 4: Multi-temperature equipment – certification and distinguishing mark

Transmitted by the Governments of France and Germany

Summary

Executive summary: The present version of ATP does not include marking requirements for multi-temperature equipment, i.e. the external marking does not allow the distinction between multi- and mono-temperature equipment. It is proposed that the marking of multi-temperature equipment display, in the case of multi-temperature equipment divided in two compartments, the ATP class of both compartments (e.g.: FRC-FRA) or, in the case of multi-temperature equipment divided in three or more compartments, the distinguishing mark for the highest ATP class supplemented by the letter M (e.g. FRC-M). Additional and more detailed information is provided in a supplementary document to the certificate of conformity issued by the competent authority of the country of manufacture based on the information given by the manufacturer.

Action to be taken: Amend annex 1, appendices 2 and 4


Introduction

1. The present version of annex 1, appendix 4 covers insulated equipment which may be refrigerated, mechanically refrigerated or heated with respect to placing distinguishing marks onto the external surface of the equipment. The same distinguishing mark is indicated on the certification plate as required in annex 1, appendix 1, paragraph 3.
2. The present version of ATP does not include marking requirements for multi-temperature equipment, i.e. the external marking does not allow the distinction between multi- and mono- temperature equipment. Marking of equipment has to be based on the needs of control authorities and users and should be understood in an unambiguous way by all users regardless of whether the separating bulkheads are fixed, movable or removable. Multi-temperature vehicles may be designed for up to six independent temperature zones allowing fixed or variable temperature configurations within these zones.

3. At the 69th session of WP.11 the following documents were presented, all focusing on the topic of marking of multi-temperature equipment: ECE/TRANS/WP.11/2013/4 (Portugal), ECE/TRANS/WP.11/2013/11, part II (France) and Informal document INF. 7 (Netherlands). The discussion continued at the 70th, 71st and 72nd session, as the following documents were presented ECE/TRANS/WP.11/2014/8 (Portugal), ECE/TRANS/WP.11/2014/10 (Germany), ECE/TRANS/WP.11/2014/22 (France), ECE/TRANS/WP.11/2015/15 (France), ECE/TRANS/WP.11/2016/16 (France), ECE/TRANS/WP.11/2016/21 (Netherlands).

4. The outcome of the discussions revealed that minimum external marking of multi-temperature equipment is necessary. Detailed markings cannot represent the variety of available equipment configurations. Instead, a simple and pragmatic solution is needed to bridge this gap between external marking and the accurate description of the specification of multi-temperature equipment.

Proposal

5. It is proposed that the marking of multi-temperature equipment is different depending on the number of compartments:

- if the equipment is divided in two compartments, the marking displays the ATP class of each compartments (e.g. FRC-FRA) starting with the compartment located at the front or on the left side of the equipment;

- if the equipment is divided in three or more compartments, the marking displays the distinguishing mark for the highest ATP class supplemented by the letter M (e.g. FRC-M) regardless of the total number of independently refrigerated compartments in use.

6. Additional and more detailed information should be given by the manufacturer and should be provided in a supplementary document to the certificate of conformity issued by the competent authority of the country of manufacture.

7. This supplementary document should include:

- A sketch showing the actual compartment configuration and evaporator arrangement;

- Proof by calculation that the multi-temperature refrigerated equipment meets the requirements of ATP for the user’s intended degree of freedom with regard to compartment temperatures and compartment dimensions.
8. The supplementary document could for example be generated by the multi-temperature calculation tool provided by Transfrigoroute International. In this case the ATP Handbook should be amended by making a reference to the calculation tool to be used for this purpose.

9. Upon implementation of these requirements, and based on the additional information provided by the supplementary document, multi-temperature equipment will be more transparent with respect to operational capability and restrictions which is to the benefit of all parties involved - equipment operators, perishable cargo shippers, equipment manufacturers and competent authorities.

10. This requirement shall apply only to equipment which is built from 1 October 2020. This date is estimated to correspond to one year after the date of entry into force of the proposed amendments and should give all parties sufficient time to prepare. There is no requirement to change the external marking of existing multi-temperature equipment. Already established marking schemes of multi-temperature equipment can be kept on existing equipment.

**Required amendments**

11. In annex 1, appendix 4, add the following text after the table:

"In the case of multi-compartment road equipment divided in two compartments the equipment mark shall consist of the distinguishing marks of each compartment (example: FRC-FRA) starting with the compartment located at the front or on the left side of the equipment;

In the case of other multi-compartment equipment divided in three or more compartments the distinguishing mark shall be selected only for the highest ATP class, i.e. the class that permits the highest difference between inside and outside temperatures, and supplemented by the letter M (example: FRC-M).

This labeling is mandatory for all equipment, which is built from 1 October 2020. Marking schemes of multi-compartment equipment which are already established can be kept on existing equipment."

12. In annex 1, appendix 2, add the following text after the present text of 7.3.6:

"A declaration of conformity shall be provided in a supplementary document to the certificate of conformity issued by the competent authority of the country of manufacture. The document shall be based on information given by the manufacturer. This document shall include at least:

- A sketch showing the actual compartment configuration and evaporator arrangement;
- Proof by calculation that the multi-compartment refrigerated equipment meets the requirements of ATP for the user’s intended degree of freedom with regards to compartment temperatures and compartment dimensions."

13. Add the following comment to annex 1, appendix 2 of the ATP Handbook:

"Comment to paragraph 7.3.6

Calculations in conformity with item 7.3.6 can be carried out using a calculation tool approved by the competent authority.

Such a multi-temperature calculation tool may be obtained from Transfrigoroute International."
<table>
<thead>
<tr>
<th>Cost:</th>
<th>Minor cost implications may arise for equipment manufacturers resulting from the supplement to the certificate of compliance to be issued by competent authorities. Competent authorities may need to build up necessary technical competencies for the issuance of these supplements.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feasibility:</td>
<td>The marking of newly built multi-temperature equipment will be easily implemented by equipment manufacturers. No transitional period is needed. Issuance of the complementary documentation by the competent authority will require a calculation tool to be available and used. If deemed appropriate a transitional period of a maximum of 2 years for implementation could be introduced. Within this period, familiarization with the calculation tool may take place by all parties involved, competent authorities and equipment manufacturers.</td>
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<tr>
<td>Enforceability:</td>
<td>No problems are expected.</td>
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</tbody>
</table>