

Economic Commission for Europe

Inland Transport Committee

27 September 2018

Working Party on the Transport of Perishable Foodstuffs

Seventy-fourth session

Geneva, 8-12 October 2018

Item 6 (b) of the provisional agenda

Proposals of amendments to ATP:

new proposals

Degrees Celsius and Kelvin

Transmitted by the Government of Spain

Introduction

1. In the last corrections made to the ATP agreement (see document ECE/TRANS/WP11/237) the degrees, measured in K, were partially substituted by °C in Annex1, Appendix 2, paragraphs 2.1.4, 2.2.5, 3.1.1, 4.2.3 (i) and 4.3.1(a).
2. Nevertheless, in the rest of the ATP text partially the temperatures are measured in K and partially in °C. It would be a welcomed simplification to introduce °C in the whole of the text, because this would:
 - Identify clearly all the references to temperatures, measured in the same unit always
 - Avoid the possibility of confusing K as used for the coefficient K from the temperatures
3. Therefore, it would be interesting to modify all references to degrees Kelvin, if possible, and refer to the values in °C.
4. The only place where the degrees Kelvin have to be used and maintained as such is in the formula corresponding to the units of the coefficient K, measured in W/m²K.

Proposal

5. It is proposed to substitute K by °C in the following occasions in Annex 1, appendix to the ATP (~~deleted text stricken through~~ and **new text in bold**):
 - 1.7, first paragraph:
 - ... "more than ± 0.3 ~~K~~ °C" ...
 - ... "by more than ± 1.0 ~~K~~ °C" ...
 - 1.7, fourth paragraph:
 - ... "by more than ± 0.2 ~~K~~ °C."
 - 2.1.2 first paragraph:
 - ... "do not exceed 2 ~~K~~ °C."
 - 2.1.7 :
 - ... "shall not exceed 2 ~~K~~ °C."
 - 2.2.3:
 - ... "does not exceed 3-~~K~~ °C when" ...
 - ... "shall not exceed 2 ~~K~~ °C..."
 - 2.2.8:

...”shall not exceed 2 K °C.”

4.1.1 :

...”or insulated body (K °C).”

4.2.2 a):

...”shall be ± 0.2 K °C.”

4.2.3 i):

...”shall not exceed 2 K °C.”

4.2.3 ii)

...”with a tolerance of ± 1 K °C.”

4.2.3 paragraph after ii):

...”with a tolerance of ± 0.5 K °C.”

6.3:

...”(a difference of 22 K °C in the case of class A, 32 K °C in the case of class B, 42 K °C in the case of class C and 52 K °C in the case of class D)...

6.4 (ii):

...” a difference of 22 K °C in the case of classes A, E and I, of 32 K °C in the case of classes B, F and J, of 42 K °C in the case of classes C, G and K, and of 52 K °C in the case of classes D, H and L),” ...

8. Test report model 2A:

Change K for °C 6 times

8. Test report model 2B:

Change K for °C 6 times

8. Test report model 4A:

Change K for °C 3 times

8. Test report model 4B:

Change K for °C 3 times

8. Test report model 4C:

Change K for °C 3 times

8. Test report model 5:

Change K for °C 3 times

8. Test report model 6:

Change K for °C 2 times

8. Test report model 7:

Change K for °C 3 times

Justification

6. The proposed amendments would imply that the temperature in the ATP agreement is measured always in °C (with the already mentioned exception of the formula corresponding to the units of the coefficient K). This would simplify the use of the text.

7. All occasions when the temperature is currently measured in K have been revised; no change in the results of the formulas will take place because of changing to °C, as the temperature difference is used in these.
