

Economic Commission for Europe

Inland Transport Committee

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Working Party on the Transport of Perishable Foodstuffs

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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.

