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Proposals of amendments to the ATP: New proposals

Proposals to modify ATP class temperatures and to correct paragraph 2.1.4 of appendix 2 to annex 1

Transmitted by the Government of France

I. Proposal to modify limit temperatures of ATP classes

Introduction

1. Since its inception, ATP has set class temperatures for temperature-controlled transport equipment. The main ATP temperature classes are -20° C, -10° C, 0° C, +7° C and +12° C.

2. At the same time, health and sanitary regulations, and first and foremost ATP annexes 2 and 3, set temperature limits for preserving perishable foodstuffs. The main temperatures for food preservation are -18° C, -12° C, 0° C, +2° C, +4° C and +6° C.

3. While most of the ATP temperature classes are appropriate for food, some do not allow for compliance with food regulations. Specifically, this is the case for temperatures set at -10° C and 0° C, which respectively are not appropriate for use with products frozen at -12° C and fresh produce preserved at 2° C.

4. Because of this, class B equipment is practically inexistent, and when class C equipment is downgraded to class B it offers hardly any more possibilities for use than equipment of class A. Similarly, for refrigerated equipment such as small containers, class D offers few advantages and does not make it possible to preserve fresh foods.

Current situation

Current ATP temperature classes

5. Temperatures defining ATP classes are summed up in Table 1, below, which is based on annex 1 to ATP.

Table 1

ATP class *Annex 1, § 2, 3, 4*	*A*	*B*	*C*	*D*	*E*	*F*
Maximum inside temperature for refrigerated equipment, in °C	**+7**	**-10**	**-20**	**0**		
Inside temperature range for mechanically refrigerated equipment, in °C	**0 to +12**	**-10 to +12**	**-20 to +12**	**< 0**	**< -10**	**< -20**
Minimum inside temperature for heated equipment, in °C	**+12 for -10° C ext**	**+12 for -20° C ext**				

Food temperature classes

6. Temperature requirements for the transport of foodstuffs are set by ATP:

- Annex 2 for quick (deep) frozen and frozen foodstuffs;
- Annex 3 for chilled foodstuffs.

7. These temperatures also figure in most international, regional and national regulations, such as the Codex alimentarius international, the regulations known as the “hygiene package” for the European Union and its partners and national laws.

8. The maximum critical thresholds are:

- -20° C for ice cream;
- -12° C for all other frozen foodstuffs;
- +2° C for minced meat;
- +7° C for red meat and large game.

Proposal

Objective

9. The aim of the proposal is to slightly change the temperature classes of ATP classes B/E and D to permit better alignment between the temperatures applicable to transported foodstuffs and the transport equipment.

Amendment

10. It is proposed to bring the limit temperatures set in ATP annex 1 into line with the requirements of ATP annexes 2 and 3 for foodstuffs.

11. The following modifications are proposed:

- For class B, for refrigerated equipment, the threshold temperature should be brought from -10° C to -12° C. Logically, for mechanically refrigerated equipment, the temperature should be changed as well, from "-10 to +12" to "-12 to +12";
- For class E, logically, for mechanically refrigerated equipment, the temperature should be changed as well, from "<-10" to "<-12";
- For class D, for refrigerated equipment, the threshold temperature should be changed from 0° C to +2° C. Logically, the temperature should be changed as well for mechanically refrigerated equipment, from "<0" to "<+2".

12. The limit temperatures would thus be summed up as in the following table:

Table 2

ATP class (proposal) *Annex 1, § 2, 3, 4*	*A*	*B*	*C*	*D*	*E*	*F*
Maximum inside temperature for refrigerated equipment, in °C	**+7**	**-12**	**-20**	**+2**		
Inside temperature range for mechanically refrigerated equipment, in °C	**0 to +12**	**-12 to +12**	**-20 to +12**	**< +2**	**< -12**	**< -20**
Minimum inside temperature for heated equipment, in °C	**+12 for -10° C ext**	**+12 for -20° C ext**				

Technical impact of the proposal

Allowing equipment to comply with temperature regulations

13. This applies to class B and E mechanically refrigerated equipment and class B refrigerated equipment, which currently qualify at -10° C.

Avoiding overcapacity

14. This applies to class D refrigerated equipment. This is essential for such class D equipment, which is used to carry refrigerated foodstuffs whose temperatures must not go below 0° C in order to avoid freezing. It is critical for small containers equipped with removable eutectic plates.

Impact of the proposal

Economic and environmental impact of the proposal

15. Compliance with temperature regulations is the best way to ensure that foodstuffs are preserved and thus to avoid wastage (and unnecessary costs).

16. Designing equipment with excessive capacity results in unnecessary material consumption (and costs) during manufacture and energy waste during operation.

Environmental impact of the proposal

17. Compliance with temperature regulations is the best way to ensure that foodstuffs are preserved and thus **to avoid wastage (loss of resources)**.

18. Designing equipment with excessive capacity results in **unnecessary material consumption (loss of resources)** during manufacture and **energy waste** during operation.

19. Equipment in service that is downgraded to class B or E will be able to carry "all other frozen foodstuffs" and not just "butter", as is currently the case.

Conclusion

20. In order on the one hand to limit disputes among operators and to ensure a correct capacity of refrigerated and mechanically refrigerated equipment, it is essential for the temperatures in ATP annex 1 to be in line with the requirements of annexes 2 and 3.

21. The use of equipment in relation to ATP classes is described in the following two tables, before and after modification.

Use of ATP classes with current temperature limits

Maximum temperature of transported foodstuffs	**Admissible refrigerated equipment**	**Admissible mechanically refrigerated equipment**
-20° C, -18° C, -12° C	RRC	FRC, FRF
-10° C	RRB, RRC	FRB, FRE, FRC, FRF
+2° C, +3° C, +4° C, +6° C	RRB, RRC, RRD, RND	FRD, FRA, FNA FRB, FRE, FRC, FRF
+7° C	RRB, RRC, RRD, RND, RRA, RNA	FRD, FRA, FNA FRB, FRE, FRC, FRF

Use of ATP classes with new temperature limits

Maximum temperature of transported foodstuffs	**Admissible refrigerated equipment**	**Admissible mechanically refrigerated equipment**
-20° C, -18° C, -12° C	RRC	FRC, FRF
-12° C	RRB, RRC	FRB, FRE, FRC, FRF
+2° C, +3° C, +4° C, +6° C	RRB, RRC, RRD, RND	FRD, FRA, FNA FRB, FRE, FRC, FRF
+7° C	RRB, RRC, RRD, RND, RRA, RNA	FRD, FRA, FNA FRB, FRE, FRC, FRF

22. If this amendment is adopted it will be necessary to take such changes into account in the rest of ATP, for example in annex 1, appendix 2, paragraph 6.2 (cool-down times) and paragraph 7 (models of test reports).

Proposed amendments

23. It is proposed to amend the following parts of ATP with the terms in bold.

Amendment No. 1: Annex 1, paragraphs 2 and 3, definition of types of temperature-controlled transport equipment

"[…]

2. Refrigerated equipment. Insulated equipment which, using a source of cold (natural ice, with or without the addition of salt; eutectic plates; dry ice, with or without sublimation control; liquefied gases, with or without evaporation control, etc.) other than a mechanical or "absorption" unit, is capable, with a mean outside temperature of +30° C, of lowering the temperature inside the empty body to, and thereafter maintaining it:

At +7° C maximum in the case of class A;

At **-12° C** maximum in the case of class B;

At -20° C maximum in the case of class C; and

At **+2° C** maximum in the case of class D.

If such equipment includes one or more compartments, receptacles or tanks for the refrigerant, the said compartments, receptacles or tanks shall:

- Be capable of being filled or refilled from the outside; and
- Have a capacity in conformity with the provisions of annex l, appendix 2, paragraph 3.1.3.

The K coefficient of refrigerated equipment of classes B and C shall in every case be equal to or less than 0.40 $W/m^2.K$.

3. Mechanically refrigerated equipment. Insulated equipment either fitted with its own refrigerating appliance, or served jointly with other units of transport equipment by such an appliance (fitted with either a mechanical compressor, or an "absorption" device, etc.). The appliance shall be capable, with a mean outside temperature of +30° C, of lowering the temperature T_i inside the empty body to, and thereafter maintaining it continuously in the following manner at:

In the case of classes A, B and C, any desired practically constant inside temperature T_i in conformity with the standards defined below for the three classes:

- Class A. Mechanically refrigerated equipment fitted with a refrigerating appliance such that T_i may be chosen between +12° C and 0° C inclusive;
- Class B. Mechanically refrigerated equipment fitted with a refrigerating appliance such that T_i may be chosen between +12° C and **-12° C** inclusive;
- Class C. Mechanically refrigerated equipment fitted with a refrigerating appliance such that T_i may be chosen between +12° C and -20° C inclusive.

In the case of classes D, E and F a fixed practically constant inside temperature T_i in conformity with the standards defined below for the three classes:

- Class D. Mechanically refrigerated equipment fitted with a refrigerating appliance such that T_i is equal to or less than **+2° C**;
- Class E. Mechanically refrigerated equipment fitted with a refrigerating appliance such that T_i is equal to or less than **-12° C**;

- Class F. Mechanically refrigerated equipment fitted with a refrigerating appliance such that T_i is equal to or less than -20° C. The K coefficient of equipment of classes B, C, E and F shall in every case be equal to or less than 0.40 $W/m^2.K$.

[…]"

Amendment No. 2: Annex 1, appendix 2, paragraph 6.2 (cool-down times)

"[…]

6.2 Mechanically refrigerated equipment

(i) Equipment constructed from 2 January 2012

It shall be verified that, when the outside temperature is not lower than +15° C, the inside temperature of the empty equipment can be brought to the class temperature within a maximum period (in minutes), as prescribed in the table below:

Outside temperature	*30*	*29*	*28*	*27*	*26*	*25*	*24*	*23*	*22*	*21*	*20*	*19*	*18*	*17*	*16*	*15*	*°C*
Class C, F	360	350	340	330	320	310	300	290	280	270	260	250	240	230	220	210	min
Class B, E	**288**	**279**	**270**	**262**	**253**	**244**	**235**	**226**	**218**	**209**	**200**	**191**	**182**	**174**	**165**	**156**	**min**
Class A, D	180	173	166	159	152	145	138	131	124	117	110	103	96	89	82	75	min

The inside temperature of the empty equipment must have been previously brought to the outside temperature.

[…]"

Amendment No. 3: Paragraph 7, models of test reports

[…]

Model No. 5

Section 3

"[…]

Effective refrigerating capacity stated by manufacturer for an outside temperature of +30° C and an inside temperature of:

0° C .....W

-12° C .....W

-20° C .....W"

[…]

Model No. 8

Section 3

"[…]

Effective refrigerating capacity stated by manufacturer for an outside temperature of +30° C and an inside temperature of:

0° C .....W

-12° C .....W

-20° C .....W”

[…]

II. Correction of the French translation of paragraph 2.1.4 of appendix 2 to annex 1

Background

24. The French version of ATP is not in line with the English and Russian versions in paragraph 2.1.4 of appendix 2 to annex 1.

25. The discrepancy results in requirements in the French version that are not technically feasible.

Proposal

26. The proposed amendment corrects the French version of annex 1, appendix 2, paragraph 2.1.4, of ATP so as to make it identical with the English and Russian versions.

27. In the French version only, replace “25° C ± 0.2 K” with “25° C ± 2 K”.

Impact of the proposal

28. No additional costs; harmonization of requirements for all testing stations.