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**ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

Working Party on the Transport of Perishable Foodstuffs

**REPORT OF THE WORKING PARTY ON THE TRANSPORT OF PERISHABLE  
FOODSTUFFS ON ITS SIXTY-THIRD SESSION  
(12-15 November 2007)**

Addendum

Draft amendments to the ATP adopted at the sixtieth and sixty-first sessions  
and modified at the sixty-second session

Following an objection to proposed amendments to the Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be Used for such Carriage (ATP) contained in ECE/TRANS/WP.11/214/Add.1 and Add.2, the text of those proposals had been considered not accepted in accordance with Article 18 of the ATP.

At its 63<sup>rd</sup> session, the Working Party decided to resubmit to the United Nations Treaty Section for communication to Contracting Parties only those proposed amendments (contained in ECE/TRANS/WP.11/214/Add.1 and Add.2) to which there had not been any objection or to which the objection could be considered purely typographical (see ECE/TRANS/WP.11/216, paragraph 19). The secretariat reproduces below the text of the draft amendments.

**Annex 1**

Paragraph 1. Replace “characterized” with “specified” (twice).

After “than 0.40 W/m<sup>2</sup>.K”, replace “;” with “and by” and “walls” with “side-walls”.

Delete:

“This second condition is, however, not required for transport equipment designed prior to the date of entry into force of this amendment<sup>3/</sup> and built before that date or during a period of three years following that date.”.

Delete the footnote:

“<sup>3/</sup> *The date of entry into force of this amendment is 15 May 1991.*”.

Paragraph 2. Delete: “with the aid of appropriate refrigerants and fittings”.

Replace “Such equipment shall comprise one or more compartments,” with “If such equipment includes one or more compartments,”.

In the last sentence, replace “coefficient of equipment” with “coefficient of refrigerated equipment”.

Paragraph 4. Read as follows:

“**Heated equipment.** Insulated equipment, which is capable of raising the inside temperature of the empty body to, and thereafter maintaining it for not less than 12 hours without renewal of supply at, a practically constant value of not less than + 12 °C when the mean outside temperature, as indicated below:

- 10 °C in the case of class A heated equipment;
- 20 °C in the case of class B heated equipment.

The K coefficient of equipment of class B shall in every case be equal to or less than 0.40 W/m<sup>2</sup>.K.”.

Paragraph 5. To be deleted.

**Annex 1, Appendix 1**

Paragraph 1. Read (a) as follows:

“(a) before equipment enters into service;”.

**Annex I, Appendix 2**

Paragraph 1. Amend to read:

“K coefficient. The overall heat transfer coefficient (K coefficient) of the special equipment is defined by the following formula:

$$K = \frac{W}{S \cdot \Delta T}$$

where W is either the heating power or the cooling capacity, as the case may be, required to maintain a constant absolute temperature difference  $\Delta T$  between the mean inside temperature  $T_i$  and the mean outside temperature  $T_e$ , during continuous operation, when the mean outside temperature  $T_e$  is constant for a body of mean surface area S.”.

Paragraph 2. Read the last sentence as follows:

“In determining the two surface areas  $S_i$  and  $S_e$ , structural peculiarities and surface irregularities of the body, such as chamfers, wheel-arches and similar features, shall be taken into account and shall be noted under the appropriate heading in test reports; however, if the body is covered with corrugated sheet metal the area considered shall be that of the plane surface occupied, not that of the developed corrugated surface.”.

Paragraph 3. Replace “ $(\theta_i)$ ” with “ $(T_i)$ ”.

Paragraph 4. Replace “ $(\theta_e)$ ” with “ $(T_e)$ ”.

(a) At the end, insert “and”.

Paragraph 5. Replace “ $\theta_i$ ” with “ $T_i$ ” and “ $\theta_e$ ” with “ $T_e$ ”.

Paragraph 6. Replace “°C” with “K” (three times), “thermal capacity” with “heating power or cooling capacity” (twice) and “internal and external temperatures” with “inside and outside temperatures”.

Paragraph 7. Replace “Insulating capacity” with “K coefficient”.

Paragraph 9. (first sentence to be deleted).

Amend the second sentence to read: “During the test, whether by the internal cooling method or by the internal heating method, the mass of air in the chamber shall be made to circulate continuously so that the speed of movement of the air 10 cm from the walls is maintained at between 1 and 2 metres/second.”.

Paragraph 10. Replace “applied” with “used” (twice), “(resistors and the like)” with “(resistors etc.)”, “an air blower” with “fans”, “all interval surfaces” with “all inside surfaces” and “2 °C” with “2 K”.

Paragraph 13. Replace “2 °C” with “2 K”.

Paragraph 15. To be deleted.

Paragraph 17. Replace “Insulating capacity” with “K coefficients” and “tested” with “measured”.

Paragraph 19. Amend to read: “The mass of air in the chamber shall be made to circulate continuously so that the speed of movement of the air 10 cm from the walls is maintained at between 1 and 2 metres/second.”.

Paragraph 20. Amend to read:

“An electrical heating appliance (resistors, etc.) shall be placed inside the tank. If the tank has several compartments, an electrical heating appliance shall be placed in each compartment. The electrical heating appliances shall be fitted with fans with a delivery rate sufficient to ensure that the difference between the maximum temperature and the minimum temperature inside each compartment does not exceed 3 K when continuous operation has been established. If the tank comprises several compartments, the difference between the mean temperature in the coldest compartment and the mean temperature in the warmest compartment shall not exceed 2 K, the temperatures being measured as specified in paragraph 21 of this appendix.”.

Paragraph 23. Replace “2 °C” with “2 K”.

Paragraph 25. To be deleted.

Paragraph 30. To be deleted.

Replace “**EFFICIENCY**” with “**EFFECTIVENESS**”.

Paragraph 32. Amend to read:

“The empty equipment shall be placed in an insulated chamber whose mean temperature shall be kept uniform, and constant to within  $\pm 0.5$  K, at + 30 °C. The mass of air in the chamber shall be made to circulate as described in paragraph 9 of this appendix.”.

Paragraph 40. In the last sentence, replace “(if any) of” with “with any”.

Paragraph 47. Replace the first sentence with:

“The test shall be continued for 12 hours after the difference between the mean inside temperature and the mean outside temperature of the body has reached the level corresponding to the conditions prescribed for the class to which the equipment is presumed to belong. In the case of new equipment, the above temperature difference shall be increased by 35 per cent.”.

Paragraph 49. In (a), replace « $\Delta\theta$ » with « $\Delta T$ » and « $\Delta\theta'$ » with « $\Delta T'$ ».

In (c), replace «°C» with «K».

In (d)(i), replace «If the results are unfavourable» with «If the results are not acceptable».

In (d)(ii), amend the last sentence to read : «If the results of the examinations and of the determination of effectiveness are acceptable, all the equipment in question may be kept in service in its initial class for a further period of six years.».

Paragraph 51. Amend to read:

“When attached to either a calorimeter box or the insulated body of a unit of transport equipment, and operating continuously, this capacity is:

$$W_o = W_j + U \cdot \Delta T$$

where

$U$  is the heat leakage of the calorimeter box or insulated body, Watts/°C.

$\Delta T$  is the difference between the mean inside temperature  $T_i$  and the mean outside temperature  $T_e$  of the calorimeter or insulated body (K),

$W_j$  is the heat dissipated by the fan heater unit to maintain each temperature difference in equilibrium.”.

Paragraph 53. At the end of the second indent, add: “, with refrigerant flow measurement being accurate to  $\pm 3\%$ ”.

Paragraph 54. Amend the beginning of (e) to read:

“(e) *Heat quantity:* The heat dissipated by the electrical resistance fan heaters shall not exceed a flow of  $1\text{ W/cm}^2$  and the heater units shall be protected by a casing of low emissivity.”

(rest unchanged).

Paragraph 55. Amend to read:

“Test conditions

(i) The average air temperature at the inlet(s) to the refrigeration unit shall be maintained at  $30\text{ °C} \pm 0.5\text{ K}$ .

The maximum difference between the temperatures at the warmest and at the coldest points shall not exceed 2 K.

(ii) Inside the calorimeter box or the insulated body of the unit of transport equipment (at the air inlet to the evaporator): there shall be three levels of temperature between  $-25\text{ °C}$  and  $+12\text{ °C}$  depending on the characteristics of the unit, one temperature level being at the minimum prescribed for the class requested by the manufacturer with a tolerance of  $\pm 1\text{ K}$ .

The mean inside temperature shall be maintained within a tolerance of  $\pm 0.5$  K. During the measurement of refrigerating capacity, the heat dissipated within the calorimeter box or the insulated body of the unit of transport equipment shall be maintained at a constant level with a tolerance of  $\pm 1\%$ .

When presenting a refrigeration unit for test, the manufacturer shall supply:

- Documents describing the unit to be tested;
- A technical document outlining the parameters that are most important to the functioning of the unit and specifying their allowable range;
- The characteristics of the equipment series tested; and
- A statement as to which prime mover(s) shall be used during testing.”.

Paragraph 56. (French version only).

Paragraph 57. Read the last indent as follows:

“with automatic controls of the refrigeration unit which unload individual cylinders (to tune the capacity of the refrigeration unit to motor output) the test shall be carried out with the number of cylinders appropriate for the temperature.”.

Paragraph 58. Amend (ii) to read as follows:

“(ii) the rate of air circulation is that specified by the manufacturer.

If the air circulation of a refrigeration unit’s evaporator fans is to be measured, methods capable of measuring the total delivery volume shall be used. Use of one of the relevant existing standards, i.e. BS 848, ISO 5801, AMCA 210-85, DIN 24163, NFE 36101, NF X10.102, DIN 4796 is recommended;”.

#### **MODEL No. 2 A**

Replace “ $\theta$ ” with “T”.

#### **MODEL No. 2 B**

Replace “ $\theta$ ” with “T”.

#### **MODEL No. 4 A**

(French version only).

**MODEL No. 4 B**

(French version only).

**MODEL No. 4 C**

(French version only).

**MODEL No. 5**

(French version only).

**MODEL No. 6**

(French version only).

**Annex 1, Appendix 4**

Delete the following:

“Class B mechanically refrigerated equipment with normal insulation FNB <sup>1/</sup>

Class C mechanically refrigerated equipment with normal insulation FNC <sup>1/</sup>

Class E mechanically refrigerated equipment with normal insulation FNE<sup>1/</sup>

Class F mechanically refrigerated equipment with normal insulation FNF<sup>1/</sup>”

Delete the footnote: “<sup>1/</sup> See transitional provisions in paragraph 5 of this annex.”

At the end of the appendix, replace the model with:

“Model:

FRC 02 - 2011
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02 = month (February) of expiry of the  
2011 = year ) certificate”

**Annex 2, Appendix 1**

Amend to read:

**“MONITORING OF AIR TEMPERATURES FOR TRANSPORT OF PERISHABLE FOODSTUFFS QUICK-FROZEN**

The transport equipment must be fitted with a suitable recording instrument to monitor, at frequent and regular intervals, the air temperatures to which quick-frozen foodstuffs intended for human consumption are subjected.

The measuring instrument must be certified by an accredited body and the documentation must be available for the approval of the competent ATP authorities.

The measuring instruments must comply with standards EN 12830 (Temperature recorders for the transport, storage and distribution of chilled, frozen, deep-frozen/quick-frozen food and ice cream - Tests, performance, suitability) and EN 13486 (Temperature recorders and thermometers for the transport, storage and distribution of chilled, frozen, deep-frozen/quick-frozen food and ice cream - Periodic verification).

Temperature recordings obtained in this manner must be dated and stored by the operator for at least one year or longer, according to the nature of the food.

Measuring instruments shall comply with the provisions of this Appendix one year after the date of entry into force of the above provision. Measuring instruments already installed, but which do not conform to the above standard, before this date, can continue to be used until 31 December 2009.”

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