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AGREEMENT ON THE INTERNATIONAL CARRIAGE OF PERISHABLE FOODSTUFFS AND ON THE SPECIAL EQUIPMENT TO BE USED FOR SUCH CARRIAGE (ATP)

GENEVA, 1 SEPTEMBER 1970

PROPOSAL OF AMENDMENTS TO THE ATP AND ITS ANNEXES

The Secretary-General of the United Nations, acting in his capacity as depositary, communicates the following:

On 3 February 2023, the Working Party on the Transport of Perishable Foodstuffs of the United Nations Economic Commission for Europe (UNECE) transmitted to the Secretary-General, in accordance with article 18 (1) of the above Agreement, proposed amendments to the ATP which were adopted at its seventy-seventh, seventy-eighth and seventy-ninth sessions held in Geneva on 26-29 October 2021, 3-6 May 2022 and 25-28 October 2022 respectively.

The Secretary-General wishes to refer to paragraphs 1 to 7 of article 18 which provide that:

"1. Any Contracting Party may propose one or more amendments to this Agreement. The text of any proposed amendment shall be communicated to the Secretary-General of the United Nations, who shall communicate it to all Contracting Parties and bring it to the notice of all other States referred to in article 9, paragraph 1, of this Agreement.

The Secretary-General may also propose amendments to this Agreement or to its Annexes which have been transmitted to him by the Working Party on the Transport of Perishable Foodstuffs of the Inland Transport Committee of the Economic Commission for Europe.

2. Within a period of six months following the date on which the proposed amendment is communicated by the Secretary-General, any Contracting Party may inform the Secretary-General

(a) that it has an objection to the amendments proposed, or

(b) that, although it intends to accept the proposal, the conditions necessary for such acceptance are not yet fulfilled in its country.

3. If a Contracting Party sends the Secretary-General a communication as provided for in paragraph 2 (b) of this article, it may, so long as it has not notified the Secretary-General of its acceptance, submit an objection to the proposed amendment within a period of nine months following the expiry of the period of six months prescribed in respect of the initial communication.

4. If an objection to the proposed amendment is stated in accordance with the terms of paragraphs 2 and 3 of this article, the amendment shall be deemed not to have been accepted and shall be of no effect.

5. If no objection to the proposed amendment has been stated in accordance with paragraphs 2 and 3 of this article, the amendment shall be deemed to have been accepted on the date specified below:

(a) if no Contracting Party has sent a communication to the Secretary-General in accordance with paragraph 2 (b) of this article, on the expiry of the period of six months referred to in paragraph 2 of this article;

(b) if at least one Contracting Party has sent a communication to the Secretary-General in accordance with paragraph 2 (b) of this article, on the earlier of the following two dates:

- the date by which the Contracting Parties which sent such communications have notified the Secretary-General of their acceptance of the proposed amendment, subject however to the proviso that if all the acceptances were notified before the expiry of the period of six months referred to in paragraph 2 of this article the date shall be the date of expiry of that period;

- the date of expiry of the period of nine months referred to in paragraph 3 of this article.

6. Any amendment deemed to be accepted shall enter into force six months after the date on which it was deemed to be accepted.

7. The Secretary-General shall as soon as possible inform all Contracting Parties whether an objection to the proposed amendment has been stated in accordance with paragraph 2 (a) of this article and whether one or more Contracting Parties have sent him a communication in accordance with paragraph 2 (b) of this article. If one or more Contracting Parties have sent him such a communication, he shall subsequently inform all the Contracting Parties whether the Contracting Party or Parties which have sent such a communication raise an objection to the proposed amendment or accept it."

The text of the proposed amendments appears in the Annex to the report ECE/TRANS/WP.11/245, Annex II to the report ECE/TRANS/WP.11/247 and Annex II to the report ECE/TRANS/WP.11/249. These documents can be accessed on the website of the UNECE Sustainable Transport Division at the following addresses: https://unece.org/info/Transport/Transport-of-Perishable-Foodstuffs/events/357984, https://unece.org/info/Transport/Transport-of-Perishable-Foodstuffs/events/364288 and https://unece.org/info/Transport/Transport-of-Perishable-Foodstuffs/events/368962.

3 February 2023

DN

Annex

[Original: English and French]

Proposed amendments to the ATP

1. Annex 1, Appendix 2, section 1.2

Amend the third paragraph to read:

"For calculating the mean surface area of the body of a panel van, the test station appointed by the competent authority shall select from one of the following three methods A-C. For calculating the mean surface area of the body of a tank, the test station appointed by the competent authority may use method A or D."

(Reference document: ECE/TRANS/WP.11/2021/4, as amended)

2. Annex 1, Appendix 2, section 1.2

Amend the last three paragraphs (Method C) to read:

"Method C. If methods A or B are not acceptable to the experts, the internal surface of the panel van shall be measured according to the figures and formulae in method B.

The initial K value shall then be calculated based on the internal surface area, taking the insulation thickness as nil to start the iteration process. From this K value, the average insulation thickness is calculated from the assumption that λ for the insulation has a value of 0,025 W/m·°C

$$d = S_i \, x \, \Delta T \, x \, \lambda \, / W$$

Once the thickness of the insulation has been estimated, the external surface area is calculated and the mean surface area is determined. The final K value is derived from successive iterations."

(Reference document: ECE/TRANS/WP.11/2021/4)

3. Annex 1, Appendix 2, section 1.2, Method C

Add new last paragraph to read as follows:

"A different value of λ may be used in this method if the actual value of λ can be estimated by physical measurements of the properties of the main thermal insulator of the wall, or by statistical data of other ATP units of similar features. The value of λ and the statistical data used, if applicable, shall be indicated in or annexed to the test report Model No. 1 A."

(Reference document: ECE/TRANS/WP.11/2021/3, as amended)

4. Annex 1, Appendix 2, section 1.2

After the last paragraph, add the following text:

"Method D. If method A is not acceptable to the experts, the external surface of the tank shall be measured, taking into account the geometrical shape of the tank and the main values needed to model this shape (e.g. diameter, radius, length of cylinder, etc.). This method can only be used if the tank can be assimilated to regular geometrical forms (cylinder, cone, sphere) that can be described by mathematical equations.

The initial K value shall then be calculated based on the external surface area, taking the insulation thickness as nil to start the iteration process. From this K value, the average

insulation thickness is calculated from the assumption that λ for the insulation has a value of 0,035 W/m °C

$$d = S_e \, x \, \Delta T \, x \, \lambda \, / W$$

Once the thickness of the insulation has been estimated, the internal surface area is calculated taking into consideration the geometrical shape of the tank, and the mean surface area is determined. The final K value is derived from successive iterations.

A different value of λ may be used in this method if the actual value of λ can be estimated by physical measurements of the properties of the main thermal insulator of the wall, or by statistical data of other ATP units of similar features. The value of λ and the statistical data used, if applicable, shall be indicated in or annexed to the test report Model No. 1 B."

(Reference document: ECE/TRANS/WP.11/2021/4, as amended)

5. Annex 1, Appendix 2, section 4.5.2

Replace the formula " $\frac{Q_{mod}-Q_{Ref}}{Q_{ref}} \geq -0{,}10$ (1)" with the formula " $\frac{Q_{mod}-Q_{Ref}}{Q_{ref}} \geq -0.10$"

Consequential amendment:

In Annex 1, appendix 2, section 9.2.1:

In the formula " $\frac{2*\left|P_{nom-max,1}-P_{nom-max,2}\right|}{P_{nom-max,1}+P_{nom-max,2}} \leq 0{,}035$ replace "0,035" by "0.035".

(Reference document: ECE/TRANS/WP.11/2021/2)

6. Annex 1, Appendix 2, section 6.2.3

Amend paragraph 6.2.3 to read as follows:

"At the request of the manufacturer, replacement of the original refrigerant fluid of mechanically refrigerated equipment in service is allowed under the following conditions:

(a) a test report or addendum confirming equivalence to a similar mechanically refrigerated unit with the drop-in refrigerant fluid is available in accordance with annex 1, appendix 2, section 4.5 of the ATP Agreement; and

(b) an efficiency test according to 6.2.1 or 6.2.2 has been successfully carried out.

In the event that the request is accepted, the manufacturer's plate must be corrected accordingly.

In the particular case of replacement of the refrigerant fluid such as those mentioned in the table below, subparagraph (a) only requires the manufacturer to request from the official test station the issue of an addendum without any additional testing.

Original refrigerant	Drop-in refrigerant
R404A	R452A

"

(Reference document: ECE/TRANS/WP.11/2021/7)

7. Annex 1, Appendix 2, paragraph 7.3.2

Amend the second line of paragraph 7.3.2, which starts with "The internal…", to read as follows:

"The internal surface area of the body shall not vary by more than 20 %."

(Reference document: ECE/TRANS/WP.11/2021/16)

8. Annex 1, Appendix 2, paragraph 7.3.2

Amend the definition of S_{body} to read as follows:

"S_{body} is the geometric mean of the inside surface area and the outside surface area of the body,"

(Reference document: ECE/TRANS/WP.11/2021/16, as amended)

9. Annex 1, Appendix 2, paragraph 7.3.3

Amend the definition of $S_{chilled\text{-}comp}$ to read as follows:

"$S_{chilled\text{-}comp}$ is the inside surface area of the chilled compartment for the given positions of the bulkheads,"

(Reference document: ECE/TRANS/WP.11/2021/16)

10. Annex 1, Appendix 2, paragraph 7.3.3

Amend the definition of S_{bulk} to read as follows:

"S_{bulk} are the surface areas of the bulkheads,"

(Reference document: ECE/TRANS/WP.11/2021/16)

11. Annex 1, Appendix 2, paragraph 7.3.4

Amend the definition of $S_{frozen\text{-}comp}$ to read as follows:

"$S_{frozen\text{-}comp}$ is the inside surface area of the frozen compartment for the given positions of the bulkheads,"

(Reference document: ECE/TRANS/WP.11/2021/16)

12. Annex 1, Appendix 4, paragraph 7.3.4

Amend the definition of S_{bulk} to read as follows:

"S_{bulk} are the surface areas of the bulkheads,"

(Reference document: ECE/TRANS/WP.11/2021/16)

13. Annex 1, Appendix 2, section 7.3.7

In the heading of the third column of the table replace "*Removable*" by "*Movable*"

(Reference documents: ECE/TRANS/WP.11/2021/9 and ECE/TRANS/WP.11/2021/18)

14. Annex 1, Appendix 2, section 9.2.1

In the third paragraph, that starts with "*For mono-temperature...*", add a last sentence to read:

"The cooling capacity obtained for the third temperature level may be calculated by the testing station on the basis of an interpolation based on the results obtained during tests carried out at the -20 °C and 0 °C temperature levels."

(Reference document: ECE/TRANS/WP.11/2021/8)

15. Annex 1, Appendix 3 (A), footnote 4

Amend footnote 4 to read as follows:

"4. Multi-temperature equipment is insulated equipment with two or more compartments for different temperatures in each compartment. For multi-temperature equipment a declaration of conformity (see 7.3.6 of annex 1, appendix 2) shall be carried in addition to the ATP certificate."

(Reference document: ECE/TRANS/WP.11/2021/18)

Annex II

Proposed amendments to the ATP

Annex 1, Appendix 2, paragraph 7.3.7

In the table, heading of column number 4, replace "foam" by "insulation".

(Reference document: ECE/TRANS/WP.11/2022/2)

Annex II

[Original: English and French]

Proposed amendments to the ATP

1. Annex 1, Appendix 2, section 8, MODEL No. 14

In Model No.14 insert a footnote after "Serial Number" under the sections "Insulated body" and "Host Unit". Footnote reads as follows:

"[a] Individual serial number or series of serial numbers."

(Reference document: ECE/TRANS/WP.11/2022/8/Rev.1, as amended)

2. Annex 1, Appendix 3, footnote 12

In footnote 12, replace "his signature" by "signature".

(Reference document: ECE/TRANS/WP.11/2022/17)

3. Annex 1, Appendix 2, paragraph 4.3.1(b)

Add a new paragraph at the end to read:

"If the compressor is driven by an auxiliary electrical power source, the test shall be carried out at the nominal electrical input parameter of the compressor as specified by the manufacturer. "

(Reference document: ECE/TRANS/WP.11/2022/20)

4. Annex 1, Appendix 2, section 7.3.1

Replace "internal dividing walls" by "dividing walls".

(Reference document: ECE/TRANS/WP.11/2022/20)

5. Annex 1, Appendix 2, section 7.3.3

In the introductory sentence, replace the word "bulkheads" by "dividing walls" and in the body of the text, replace the word "bulkheads" by "dividing walls" (3 times).

(Reference document: ECE/TRANS/WP.11/2022/20)

6. Annex 1, Appendix 2, section 7.3.4

In the introductory sentence, replace "bulkheads" by "dividing walls" and in the body of the text, replace "bulkheads" by "dividing walls" (3 times).

(Reference document: ECE/TRANS/WP.11/2022/20)

7. Annex 1, Appendix 2, section 7.3.5

In the introductory sentence, replace "bulkheads" by "dividing walls"

(Reference document: ECE/TRANS/WP.11/2022/20)

8. Annex 1, Appendix 2, section 7.3.6

In the introductory sentence, replace "bulkheads" by "dividing walls" and in the body of the text, replace "bulkheads" by "dividing walls".

(Reference document: ECE/TRANS/WP.11/2022/20)

9. Annex 1, Appendix 2, section 7.3.7

In the heading and first paragraph, replace "internal dividing walls" by "dividing walls" (2 times).

(Reference document: ECE/TRANS/WP.11/2022/20)

10. Annex 1, Appendix 2, section 8, MODEL No. 14

Replace "bulkheads" by "dividing walls" (2 times).

(Reference document: ECE/TRANS/WP.11/2022/20)

11. Annex 1, Appendix 2

Insert a new paragraph 3.2.8 to read as follows:

"3.2.8 If the refrigerating appliance with all of its accessories has undergone separately, to the satisfaction of the competent authority, a test to determine the air circulation volume, the minimum required airflow in cooling mode for both mechanically refrigerated equipment and mechanically refrigerated and heated equipment with a forced ventilation system shall conform to the following formula[7]:

$\dot{V}_L = N \cdot V$

Where minimum airflow rate $\dot{V}_L$ is air changes per hour N, multiplied by the empty volume V.

Where N = 50

The air volume flow may be modulated in part load operation after reaching the set point temperature and if the temperature of the class is reached, the air flow needs not be continuous.

Where V exceeds 60 m^3 V_L may be limited to at least 3000 m^3 per hour for containers, wagons and lorries[8].

Where V exceeds 100 m^3 V_L may be limited to at least 5000 m^3 per hour."

Footnotes 7 and 8 read as follows:

"[7] Applies to equipment manufactured after (DD MM YEAR)

[8] Containers can be demountable bodies of lorries"

(Reference document: ECE/TRANS/WP.11/2022/16, as amended by informal document INF.10, as amended)

12. Annex 1, Appendix 2

Insert a new paragraph 3.4.9 to read:

"3.4.9 The equipment should comply with the airflow requirements in cooling mode prescribed in paragraph 3.2.8"

(Reference document: ECE/TRANS/WP.11/2022/16, as amended by informal document INF.10, as amended)

13. Annex 1, Appendix 2, paragraph 7.3.1

Add new indent at the end to read

"- The equipment should comply with the airflow requirements in cooling mode prescribed in paragraph 3.2.8."

(Reference document: ECE/TRANS/WP.11/2022/16, as amended by informal document INF.10, as amended)

14. Annex 1, Appendix 3,

Insert new section 7.2.6 in the Model form of Certificate of compliance to read:

"7.2.6 XX air changes/hour"

(Reference document: ECE/TRANS/WP.11/2022/16, as amended by informal document INF.10, as amended)

15. Annex 1, Appendix 3,

Insert a new footnote 11, after footnote 10, to read:

"[11] Where XX is the number of air changes per hour calculated by dividing the total airflow of the circulation fans by the total internal volume of the equipment. In the case of multi-compartment equipment with movable bulkheads, the total airflow of the circulation fans has to be divided by the maximum internal volume of each compartment."

(Reference document: ECE/TRANS/WP.11/2022/16, as amended by informal document INF.10, as amended)

16. Annex 1, Appendix 3,

Renumber existing footnotes 11 to 15 as 12 to 16.

(Reference document: ECE/TRANS/WP.11/2022/16, as amended by informal document INF.10, as amended)

Annex. III

[Original: English and French]

Additions to the ATP Handbook

1. Annex 1, Appendix 2, section 1.2

In the table of "Method A", replace "bulkhead" by "dividing walls".

(Reference document: ECE/TRANS/WP.11/2022/20)

2. Annex 1, Appendix 2

Add a new comment after paragraph 3.2.8 to read as follows:

"Airflow is an essential parameter within temperature-controlled transport.

For frozen cargoes, airflow should be low to avoid desiccation but sufficient to remove heat entering through the insulated walls, supply air can deviate below the set temperature to remove heat without damaging the product. Chilled cargoes require higher airflow for good temperature distribution and also because the supply air temperature cannot be allowed to deviate significantly below the set temperature due to freezing or chilling damage. Some chilled cargoes are metabolically active and therefore require higher airflow to remove that heat.

Intermittent fan operation should not be used for sensitive cargo where close temperature distribution is required. Generally, start/stop operation of the unit when the evaporator fans/unit are allowed to cycle shall be used only for frozen goods transportation.

Table 1

Examples of air flow requirements for temperature sensitive goods

Type of goods	*Temperature range [°C]*	*Sensitivity to humidity*	*Recommended air change rate[ac/h]*
Hanging meat	-1/+1°C	Yes	50 –90
Chilled products	-1/+6°C	Yes	50 – 90
Frozen foods	< -18°C	No	40 – 60
Ice cream	< -20 °C	low	40 – 60

"

(Reference document: ECE/TRANS/WP.11/2022/16, as amended by informal document INF.10, as amended)