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## Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Perishable Foodstuffs

Seventy-seventh session

### **Report of the Working Party on the Transport of Perishable Foodstuffs on its seventy-seventh session**

held in Geneva on 26-29 October 2021



## Contents

	<i>Paragraphs</i>	<i>Page</i>
I. Attendance.....	1–3	5
II. Adoption of the agenda (agenda item 1) .....	4	5
III. Activities of ECE bodies of interest to the Working Party (agenda item 2).....	5–10	5
A. Inland Transport Committee.....	5–9	5
1. Implementation of the ITC Strategy until 2030.....	8	5
2. Circular economy and the sustainable use of natural resources .....	9	5
B. Working Party on Agricultural Quality Standards.....	10	6
IV. Activities of other international organizations dealing with issues of interest to the Working Party (agenda item 3) .....	11–31	6
A. International Institute of Refrigeration (IIR) .....	11	6
B. Transfrigoroute International .....	12–14	6
C. Standardization organizations.....	15–18	7
1. CEN/TC 413 Working Group 2 .....	16–18	7
2. CEN/TC 413 Working Group 1 .....	19–22	7
3. Revision of EN 12830 .....	23	8
4. Revision of EN 13485 and EN 13486 .....	24–25	8
5. ISO standards concerning thermal maritime insulated refrigerated containers .....	26–29	8
6. Other standardization activities of interest to WP.11 .....	30–31	9
V. Status and implementation of the Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be Used for such Carriage (ATP) (agenda item 4).....	32–43	9
A. Status of application of the Agreement.....	32	9
B. Status of amendments .....	33–35	9
C. Test stations officially designated by the competent authorities of countries Parties to ATP.....	36	10
D. Exchange of information among Parties under Article 6 of ATP .....	37–39	10
E. Exchange of good practices for better implementation of ATP.....	40	10
Request for information from the Russian Association of Food Sector Organizations (ASORPS) .....	40	10
F. Interpretation of ATP.....	41–43	10
1. Temperature recorders.....	41–42	10
2. Discussion document on K Value .....	43	11
VI. Proposals of amendments to ATP (agenda item 5) .....	44–79	11
A. Pending proposals.....	44–55	11
1. Definition of the independence of a unit taking into account mixed energy source technologies.....	44–47	11
2. Amendment to Annex 1, Appendix 2 paragraph 3.2.6 and the ATP Handbook.....	48–49	11

3.	Amendment relating to the use of checks to be carried out under paragraph 4.3.4 of annex 1, appendix 2, of ATP of 6 January 2020 .....	50–51	12
4.	Introduction of type examination certificates as a means of establishing conformity of design and of testing carried out in accordance with ATP protocols .....	52–53	12
5.	Amendments to the models of reports that define the specifications of equipment and tanks for the carriage of liquid foodstuffs resulting from the need to take into account technological developments brought about by the use of new insulating materials .....	54–55	12
B.	New proposals .....	56–79	12
1.	Editorial correction in formula in appendix 2, annex 1, procedure 4.5.2	56	12
2.	Amendment to Annex 1, Appendix 2 paragraph 1.2, Testing Method C	57	12
3.	Inclusion of an additional iterative method for tanks to Annex 1, Appendix 2, paragraph 1.2.....	58	13
4.	Amendment to model reports that define how to determine the effective refrigerating capacity of a refrigeration unit, in order to take into account the impact of different software versions on the performance of said units	59	13
5.	Proposal of amendment to Annex 1, Appendix 2, paragraph 6.2.3: Replacement of the original refrigerant fluid by other refrigerant fluid.	60	13
6.	Simplification of the procedure for measuring the capacity of liquefied gas refrigeration units.....	61	13
7.	Editorial amendment concerning a terminology error in the Russian and English versions of paragraph 7.3.7 of Annex 1, Appendix 2 of the ATP applicable from 6 July 2020 .....	62	13
8.	Possibility of voluntary extending the scope of bilateral and multilateral agreements under the ATP Agreement to foodstuffs that may become unfit for human consumption .....	63	13
9.	Proposal to amend Annex 1, Appendix 2, paragraph 7.1 (a) and Annex 1, Appendix 4 Definition of multi-compartment equipment and distinguishing marks of multitemp equipment with unconditioned compartments .....	64	13
10.	Proposal to amend Annex 1, Appendix 2, paragraph 7.3.7: Correction of the table.....	65	13
11.	Proposal to amend Annex 1, Appendix 2, paragraphs 7.3.2, 7.3.3 and 7.3.4: Reference of multitemp calculations .....	66	14
12.	Proposal to amend Annex 1, Appendix 1, paragraphs 6 (a) and (b) and Annex 1, Appendix 2, Model No. 12: Validity of test reports for mechanical refrigeration units .....	67-71	14
13.	Proposals by the Informal Working Group on the improvement of the approval system of equipment and thermal appliances .....	72–73	14
14.	Amendment to Annex 1, Appendix 4.....	74	14
15.	Temporary ATP certificates for prototype equipment for Field Trial Testing.....	75–78	14
16.	Comments and proposal on declaration of conformity (Annex 1, Appendix 2 paragraph 7.3.6) and the dimensioning of Multi-Compartment, Multi-Temperature equipment (MTMC).....	79	15
VII.	ATP Handbook (agenda item 6).....	80–90	15
1.	Definition of the independence of a unit taking into account mixed energy source technologies .....	80	15

2.	Amendment to Annex 1, Appendix 2 paragraph 3.2.6 and the ATP Handbook.....	81	15
3.	Amendment to paragraph 7.3.6 of Annex 1 Appendix 2 of the ATP Handbook: Treatment of specific application cases using the multi-temperature equipment dimensioning tool.....	82–85	15
4.	Amendments to paragraph 6 (c) (iii) of Appendix 1 to Annex 1 of the ATP Handbook: Rules to be observed for the installation of mounted units, units with deflectors, under-frame units or units that can be offset.....	86–87	16
5.	Amendments to the comments on Appendix 1 of Annex 2 paragraph 4 of the ATP Handbook: Positions of temperature measurement probes during transport .....	88–89	16
6.	Discrepancies between the English and French versions of comment to paragraph 3.2.6 of the ATP Handbook.....	90	16
VIII.	Reports of informal working groups (agenda item 7) .....	91–93	16
IX.	Scope of ATP (agenda item 8) .....	94–96	17
X.	Energy labelling, refrigerants and blowing agents (agenda item 9) .....	97	17
XI.	Programme of work (agenda item 10).....	98–99	17
XII.	Election of officers (agenda item 11).....	100	17
XIII.	Other business (agenda item 12) .....	101	17
XIV.	Adoption of the report (agenda item 13).....	102–103	18
Annex			
	Proposed amendments to the ATP .....		19

## I. Attendance

1. The seventy-seventh session of Working Party on the Transport of Perishable Foodstuffs of the United Nations Economic Commission for Europe was held from 26–29 October 2021 with Mr. K. de Putter (Netherlands) as Chair and Mr. J.M. Bonnal (France) as Vice-Chair.
2. Representatives of the following countries took part in the session: Croatia, Czech Republic, Denmark, Finland, France, Germany, Italy, Luxembourg, Netherlands, Poland, Russian Federation, Slovakia, Slovenia, Spain, Turkey, United Kingdom of Great Britain and Northern Ireland and United States of America.
3. The intergovernmental organization International Institute of Refrigeration (IIR) and the non-governmental organization and Transfrigoroute International (TI) also took part in the session. EuroMed Transport Support Project was also represented.

## II. Adoption of the agenda (agenda item 1)

*Documents:* ECE/TRANS/WP.11/244  
ECE/TRANS/WP.11/244/Add.1  
Informal document INF.1 (Secretariat)

4. The provisional agenda (ECE/TRANS/WP.11/244 and -/Add.1) were adopted as amended by informal document INF.1 to take account of informal documents INF.1 to INF.13.

## III. Activities of ECE bodies of interest to the Working Party (agenda item 2)

### A. Inland Transport Committee

5. The Working Party was informed about the results of the eighty-third session of the Inland Transport Committee (ITC), (23–26 February 2021) as reflected in its report (ECE/TRANS/304, paragraphs 91–94).
6. The Working Party was also informed of the outcomes of the policy segment titled "Back to a sustainable future: achieving resilient connectivity for post-COVID-19 sustained recovery and economic growth" and the Meeting on the implementation of the ITC strategy for Government Delegates only with the Participation of the Chairs of the Committee's Subsidiary Bodies, paragraphs 11–14 and 15–18 of ECE/TRANS/304, respectively.
7. The ITC adopted the reports of its subsidiary bodies (ECE/TRANS/304, para. 124).

#### 1. Implementation of the ITC Strategy until 2030

*Document* ECE/TRANS/2021/3

8. The Working Party noted with interest the work on the implementation of the Committee's strategy until 2030 and the required actions listed in document ECE/TRANS/2021/3 in accordance with the discussion held at its seventy-sixth session. Any delegation wishing to contribute additional information under "Status and next steps" may send its contribution to the WP.11 bureau and the secretariat before 15 January 2022 so it can be reported to the eighty-fourth session of the ITC (22–25 February 2022).

#### 2. Circular economy and the sustainable use of natural resources

*Document* Informal document INF.10 (Secretariat)

9. The Working Party noted the information provided in informal document INF.10, related to circular economy and the sustainable use of natural resources, specially paragraphs 10-13 and agreed to discuss at a future session:

- how to enhance the impact of ATP, in order to foster circular and more resource efficient approaches, including by proposing ways to identify, assess and fill gaps in governance and good practices;
- consider developing proposals, including possible collaboration across subprogrammes, for impactful and measurable solutions that promote a circular economy and the sustainable use of natural resources and that can facilitate attaining the objectives of the 2030 Agenda for Sustainable Development;

## **B. Working Party on Agricultural Quality Standards**

10. The activities of the Working Party on Agricultural Quality Standards (WP.7) of interest to WP.11 were:

- Twenty-ninth session of the Specialized Section on Standardization of Meat (GE.11) 07 – 08 September 2021, Geneva, Switzerland;
- Seventy-sixth session of the Working Party on Agricultural Quality Standards (WP.7) 15 – 17 November 2021, Geneva, Switzerland.

The latest UNECE tool to combat food loss and waste could be found at <https://unece.org/trade/wp7/food-loss-and-waste>

For more information on these and other activities, please visit WP.7 website at <https://unece.org/trade/working-party-agricultural-quality-standards-wp7>.

## **IV. Activities of other international organizations dealing with issues of interest to the Working Party (agenda item 3)**

### **A. International Institute of Refrigeration (IIR)**

11. The Working Party was informed about the results of the meeting of the IIR sub-commission on refrigerated transport held by video conference on 28 April 2021 (see informal document INF.3). The Sub-Commission had given its support for proposals to WP.11 including those on:

- Simplifying liquefied gas unit testing;
- Internal airflow (with some modifications);
- -Lambda value;
- Lambda and form factor;
- Alternative drop-in refrigerants for R404A.

### **B. Transfrigoroute International**

12. The representative of Transfrigoroute International (TI) presented the recent activities of his organization as reflected in informal document INF.4. TI considered that ATP should keep up with new technologies and in that regard considered that::

(a) Provision 6.2.3 allowing drop in refrigerant from R404A to R452A was a good progress and the French proposal in ECE/TRANS/WP.11/2021/7 is another step in the right direction;

(b) For alternative power train, it became urgent to elaborate proposals formalizing a modular approach as discussed at CERTE when it comes to power sources in order to be ready for incoming technologies;

13. Additionally, ATP should tend to be more flexible and the following proposals were supported:

- Requirement to separate test reports and type approvals (French proposal in ECE/TRANS/WP.11/2021/5)
- Extending the validity of test reports (German proposal in ECE/TRANS/WP.11/2021/17)
- Providing temporary certificates for prototype (TI proposal in ECE/TRANS/WP.11/2021/22).

14. Transfrigoroute International also suggested key performance indicators (KPIs) be established to better measure the performance and objectives of the ATP.

## C. Standardization organizations

15. Delegations participating in the work of standardization organizations were invited to inform the Working Party about progress on the development of standards dealing with transport under controlled temperatures and what impact these standards were expected to have on the ATP.

### EN Standards

#### 1. CEN/TC 413 Working Group 2

16. Experts from Belgium, France, Italy, Ireland, Netherland, United Kingdom and Germany with informal participation of experts from other European Nations have had several virtual meetings and working group meetings during the last 12 months.

17. EN 16440 — 1:2015-01 Testing methodologies of cooling equipment for insulated means of transport — Part 1: Mechanical refrigeration devices with forced air circulation evaporator with or without heating devices. The final version was published in January 2015.

18. Following additional parts will be still under consideration:

- Part 2: Eutectic Systems: The current working draft is still under consideration with the view of sending the final version to a second CEN enquiry after the revision. Especially, the test provisions for cooling capacities and consumption for new equipment with eutectic systems as well equipment in daily operation sequences were adopted and revised.
- Draft and project will be sent for a new ballot after the re-activation to finalize the draft version of prEN 16440-2 and CEN enquiry.
- Part 3: Transport refrigeration systems with dry ice: This project was stopped.
- Part 4: Controlled gas refrigeration systems with direct evaporation: This project was stopped.
- Part 5: Controlled gas refrigeration systems with indirect evaporation: This project was stopped.
- An additional part 6: Special requirements on multitemp systems: Was scheduled as a further project.

#### 2. CEN/TC 413 Working Group 1

19. Experts from Belgium, France, Finland, Italy, Ireland, Netherland, United Kingdom and Germany, supported by Latvia and Sweden with informal participation of experts from other European Nations have had several virtual meetings and working group meetings during the year.

20. The scope of the project committee will be a standard with the title: Insulated means of transport for temperature sensitive goods — requirements and testing. The standard applies to thermally insulated means of transport used for temperature sensitive goods in order to limit the heat exchange due to external conditions. If certain temperatures have to be maintained, they could be additionally provided with a cooling and/or heating source. The

current framework is taking into account inside temperatures between  $-30^{\circ}\text{C}$  and  $+25^{\circ}\text{C}$  and ambient conditions between  $-30^{\circ}\text{C}$  and  $+43^{\circ}\text{C}$ .

21. The standard is projected with different parts as:

- prEN 17066 Part 1: Container — Insulated means of transport for temperature sensitive goods — Requirements and testing to define the terminology, the specific requirements, test provisions, dimensioning of insulated bodies including evaluation of k value. Final version was published on October 2019.
- Part 2: Equipment — Combination of insulated bodies and their cooling and/or heating devices including verification of cooling and heating capacities for long distance transport as well distribution. *Further technical discussions were needed about design margins for distribution and further general requirements.*
- Part 3: Small containers for multiple use with an internal volume not more than  $2\text{ m}^3$ . *The special combination of smaller insulated bodies and their cooling and/or heating devices including verification of cooling and heating capacities have reached a consensus at the working group which would soon be sent for a CEN inquiry.*
- An additional part: *Special requirements on multitemp systems: Was scheduled as a further project.*

22. A new working group has started working on a new EN standard titled: Thermal Road Vehicles - Safety Standard for temperature-controlled systems using flammable refrigerants for the transport of goods. Several virtual meetings had taken place and the next ones would be held on 2 November 2021 and 23 November 2021, respectively, with liaisons to other related CEN committees.

### 3. Revision of EN 12830

23. EN 12830:1999 — Temperature recorders for the transport, storage and distribution of chilled, frozen, deep-frozen/quick-frozen food and ice cream — Tests, performance, suitability: Revision took into account current technical developments and requirements. The scope of the revised standard has an increased temperature range from  $-80$  to  $+85^{\circ}\text{C}$  for temperature sensitive goods in the cold chain. *Final version was published on October 2018.*

### 4. Revision of EN 13485 and EN 13486

- Revision of the EN 13485:2002 — Thermometers for measuring the air and product temperature for the transport, storage and distribution of chilled, frozen, deep-frozen/quick-frozen food and ice cream — Tests, performance, suitability; and
- Revision of the EN 13486:2002 — Temperature recorders and thermometers for the transport, storage and distribution of chilled, frozen, deep-frozen/quick-frozen food and ice cream — Periodic verification to adopt modifications and actual technical development of the published EN 12830:2018-10 — Temperature recorders for the transport, storage and distribution of temperature sensitive goods — Tests, performance, suitability.

24. The actual project was started on 4 October 2018. Several virtual meetings of the CEN TC 423 were held with experts from Germany, France, Spain and Portugal.

25. The new work item proposal for the revision of both standards has started at CEN TC 423 Working Group 1 in 2021 with the objective of finalizing the draft for official CEN enquiry. Next virtual meetings were scheduled for 4 November 2021 and 29 November 2021.

## ISO Standards

### 5. ISO standards concerning thermal maritime insulated refrigerated containers

26. Meeting of members of ISO TC104 Freight containers was held on the 12 February 2021 and the 18 October 2021.

27. The refrigerated container standard published in 2018 has been adopted by industry and the thermal testing now mirrors the test requirements of ATP and CEN. No further



revisions are currently planned but the committee has received several queries as to interpretation of the standard and therefore committee SC22 WG1 has remained in place.

28. Other issues discussed were NW IP Technical Specification 7344 entitled "Short-range Wireless Sensor to Device Communication" and possible regulation/standardisation concerning containers lost at sea.

29. Marine containers historically communicated by modem through their power cable, the latest units use the GSM mobile phone network as well as WiFi and bluetooth. The systems work even when the units are not plugged in and report faults and loss of power and can even call a technician using GPS to geofence the terminal where the container is located. The current communications standard is completely outdated and will require revision.

## **6. Other standardization activities of interest to WP.11**

30. Information on Korean projects in ISO/TC 122 "Packaging". Two Korean projects within ISO/TC 122/WG 16 "Temperature controlled product packaging", Convenorship: Korea are published:

- ISO 22982-1:2021-03: Temperature controlled transport packaging - Part 1: General requirements; and
- ISO 22982-2:2021-03: Transport packaging — Temperature-controlled transport packages for parcel shipping — Part 2: General specifications of testing.

31. The representative of TI informed WP.11 that a new committee TC 315, within the ISO framework, was created to develop standards dealing with cold chain logistics. There was a very strong interest among Asian countries in this work and the TI representative would act as a liaison between the committee and the Working Party.

## **V. Status and implementation of the Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be Used for such Carriage (ATP) (agenda item 4)**

### **A. Status of application of the Agreement**

32. There have been no new accessions to ATP since the last session and the number of Contracting Parties remains at 50.

### **B. Status of amendments**

33. Proposed amendments to the ATP adopted by WP.11 at its seventy-fifth and seventy-sixth sessions held in Geneva from 8 to 11 October 2019 and from 13 to 16 October 2020, respectively, and contained in Annex II to the report ECE/TRANS/WP.11/241 and Annex I to the report ECE/TRANS/WP.11/243, respectively, (depositary notification C.N.79.2021.TREATIES-XI.B.22), were notified to ATP Contracting Parties by the United Nations Treaty Section on 4 March 2021.

34. On 6 April 2021, the Government of Germany, in accordance with Article 18 (2) (b) of the ATP, informed the Secretary-General that although it intended to accept the proposals, the conditions for such acceptance were not yet fulfilled (C.N.121.2021.TREATIES-XI.B.22). Therefore, proposals of amendments adopted at the 2019 and 2020 sessions of WP.11 would be deemed accepted only if, before the expiry of a period of nine months following the initial notification period of six months, the Government of Germany does not notify an objection to the proposed amendments.

35. Proposed correction to the ATP adopted at the seventy-fifth session of WP.11 in 2019 (ECE/TRANS/WP.11/241, Annex III) was notified to ATP Contracting Parties by the United

Nations Treaty Section on 4 March 2021 (C.N.80.2021.TREATIES-XI.B.22). Correction was deemed accepted on 7 June 2021 (C.N.159.2021.TREATIES-XI.B.22).

### **C. Test stations officially designated by the competent authorities of countries Parties to ATP**

36. The current list of officially designated test stations appears at the following web link: <http://www.unece.org/trans/main/wp11/teststationsnew.html>.

### **D. Exchange of information among Parties under Article 6 of ATP**

37. At the seventy-sixth session, the WP.11 thanked the 23 countries that had provided data in response to the questionnaire on the implementation of ATP in 2019 and stressed that it was mandatory to have information from all ATP contracting parties and that it was a means of harmonizing implementation of the agreement.

38. The information received for the year 2020 is presented in ECE/TRANS/WP.11/2021/1. Countries were also asked to respond to an additional question on how parcels and small containers used for the transport of perishable foodstuffs were regulated in each country, answers received by the secretariat were included in annex I to document ECE/TRANS/WP.11/2021/1. Countries were also requested to send the secretariat information on additional measures taken to guarantee the transport of perishable goods across borders in response to the COVID-19 pandemic, answers received by the secretariat were included in annex II to said document.

39. At the request of the Working Party at its seventy-third session, the secretariat sent a letter to all contracting parties requesting them to fulfil their obligation under article 6 of ATP of replying to the annual questionnaire and to update the contact information for competent authorities and test stations. All the information received by the secretariat is included in the list of competent authorities and officially designated test stations at <https://unece.org/atp-competent-authorities-and-testing-stations>.

### **E. Exchange of good practices for better implementation of ATP**

#### **Request for information from the Russian Association of Food Sector Organizations (ASORPS)**

*Document:* Informal document INF.9 (ASORPS)

40. The Working Party took note of the request for information exchange from the Russian Association of Food Sector Organizations (ASORPS) in informal document INF.9. WP.11 requested a clarification and more details on what was meant by "continuous cold chain (CCC)" in order to make the exchange of information more efficient.

### **F. Interpretation of ATP**

#### **1. Temperature recorders**

*Document:* ECE/TRANS/WP.11/2021/19 (Netherlands)

41. Some delegations remarked that as the cost of installation of temperature recorders has gone down, making it possible to install them gradually in all equipment providing a transitional period. Others believed the use of temperature recorders should be optional for perishable foodstuffs that did not require the use of temperature recorders already.

42. It was decided to postpone consideration of this proposal for the next session.

## 2. Discussion document on K Value

*Document:* ECE/TRANS/WP.11/2021/21 (United Kingdom)

43. From the interventions it was clear that some Competent Authorities were using the measured K value for dimensioning calculations while other were using the class limit value, or worst-case scenario. The United Kingdom delegation thanked the Working Party for the answers and believed that the measured value of K should be used whenever possible for these calculations.

## VI. Proposals of amendments to ATP (agenda item 5)

### A. Pending proposals

#### 1. Definition of the independence of a unit taking into account mixed energy source technologies

*Documents:* ECE/TRANS/WP.11/2020/1/Rev.2 (France).  
Informal document INF.7 (Netherlands)  
Informal document INF.13 (United Kingdom)

44. While there was consensus that the documents were addressing a very important topic, several aspects of the proposal needed to be further developed. The revised proposal in ECE/TRANS/WP.11/2020/1/Rev.2 was submitted to the vote. It was rejected with two votes in favour (France and Italy) and four votes against (Czechia, Denmark, Germany and United Kingdom).

45. It was decided to create an informal working group to address, among others:

- (a) Definitions of drive independent and drive dependent as well as ways to measure/check if the equipment was independent/dependent;
- (b) Minimum duration for which drive independence was needed;
- (c) How to test the endurance of the battery;
- (d) Battery charging times and level of charge required to consider the equipment independent.

46. The French delegation submitted a draft mandate to be formally discussed at the next session as part of a working document.

47. Several delegations, including Czechia, Germany, Italy, the Netherlands, United Kingdom and Transfrigoroute International were interested in participating in the informal working group.

#### 2. Amendment to Annex 1, Appendix 2 paragraph 3.2.6 and the ATP Handbook

*Document:* ECE/TRANS/WP.11/2020/5/Rev.2 (United Kingdom)

48. There was general agreement in principle, to the inclusion of provisions in the ATP regarding airflow circulation in the body of the equipment, but the Finnish delegation made the following comments:

- (a) It did not completely agree with the statement that 1,75 rule concerning cooling capacity shall be the limiting factor in lorries having internal volume more than 60 m<sup>3</sup> and there should be fixed requirement for airflow.
- (b) Did not agree with new air flow requirements of 5500 m<sup>3</sup>/h instead of 5000 m<sup>3</sup>/h; if internal volume is more than 100 m<sup>3</sup>.
- (c) Reminded that FRC and BRC are not comparable frozen classes because in BRC lower limit of the inside temperature is 0 °C. Instead in classes BRI, BRJ, BRK and BRL lower limit is -20 °C as is in FRC.

49. The United Kingdom delegation will present a new revised proposal at the next session, after some bilateral discussions with the Finnish delegation.

**3. Amendment relating to the use of checks to be carried out under paragraph 4.3.4 of annex 1, appendix 2, of ATP of 6 January 2020**

*Document:* ECE/TRANS/WP.11/2020/3/Rev.2 (France)

50. As the proposal in ECE/TRANS/WP.11/2020/3/Rev.2 was intended to revert to the status before 19 December 2016, where the information regarding airflow was specified by the manufacturer and the proposal in ECE/TRANS/WP.11/2020/5/Rev.2 was not adopted, the French delegation decided to submit its proposal to a vote.

51. The proposal was rejected with five votes in favour (France, Italy, Luxembourg, Spain and Turkey) and two votes against (Germany and United Kingdom).

**4. Introduction of type examination certificates as a means of establishing conformity of design and of testing carried out in accordance with ATP protocols**

*Document:* ECE/TRANS/WP.11/2021/5 (France)

52. As there was not consensus on the principle of splitting the test reports in two documents, the French delegation exhorted other delegations, mainly from industry, in agreement with the principle, to convince their authorities on the need and benefits of this approach. When submitted to a vote, the principle was rejected with five votes in favour (France, Italy, Luxembourg, Slovenia and Spain) and one vote against (Germany).

53. Some delegations confirmed that test reports were confidential and that it was the responsibility of the applicant to provide all the information requested by the testing station for the issuance of a new test report, avoiding therefore potential confidentiality issues.

**5. Amendments to the models of reports that define the specifications of equipment and tanks for the carriage of liquid foodstuffs resulting from the need to take into account technological developments brought about by the use of new insulating materials**

*Document:* ECE/TRANS/WP.11/2020/4/Rev.2 (France)

54. There was support for the principle that test reports should only contained results of the tests, all other information should be provided by the manufacturer. There was also a willingness to consider splitting the test reports into 3 documents, building on the proposal in ECE/TRANS/WP.11/2021/5 by France and including a third document or information sheet containing specifications provided by the manufacturer.

55. It was clarified that model type test reports, model type examination certificate and model information sheet should be defined in order to continue working in this direction. Several delegations, including Germany, Spain, Slovenia, Turkey and Transfrigoroute International were interested in drafting a new proposal for the next session.

## **B. New proposals**

**1. Editorial correction in formula in appendix 2, annex 1, procedure 4.5.2**

*Document:* ECE/TRANS/WP.11/2021/2 (Spain)

56. The proposal was adopted (see annex).

**2. Amendment to Annex 1, Appendix 2 paragraph 1.2, Testing Method C**

*Documents:* ECE/TRANS/WP.11/2021/3 (Spain)  
Informal document INF.2 (Spain)

57. After a few questions from the Working Party were answered, the proposal was adopted as amended (see annex).

**3. Inclusion of an additional iterative method for tanks to Annex 1, Appendix 2, paragraph 1.2**

*Documents:* ECE/TRANS/WP.11/2021/4 (Spain)  
Informal document INF.2 (Spain)

58. After some clarifications, the proposal was adopted as amended (see annex).

**4. Amendment to model reports that define how to determine the effective refrigerating capacity of a refrigeration unit, in order to take into account the impact of different software versions on the performance of said units**

*Document:* ECE/TRANS/WP.11/2021/6 (France)

59. As the proposal in document 2021/6 was linked to the proposal of splitting the test reports into two documents in 2021/5 that was not adopted, the document was withdrawn.

**5. Proposal of amendment to Annex 1, Appendix 2, paragraph 6.2.3: Replacement of the original refrigerant fluid by other refrigerant fluid**

*Document:* ECE/TRANS/WP.11/2021/7 (France)

60. The proposal was adopted (see annex).

**6. Simplification of the procedure for measuring the capacity of liquefied gas refrigeration units**

*Document:* ECE/TRANS/WP.11/2021/8 (France)

61. After some clarifications, the proposal was adopted (see annex).

**7. Editorial amendment concerning a terminology error in the Russian and English versions of paragraph 7.3.7 of Annex 1, Appendix 2 of the ATP applicable from 6 July 2020**

*Document:* ECE/TRANS/WP.11/2021/9 (France)

62. The proposal was adopted (see annex).

**8. Possibility of voluntary extending the scope of bilateral and multilateral agreements under the ATP Agreement to foodstuffs that may become unfit for human consumption**

*Document:* ECE/TRANS/WP.11/2021/10 (France)

63. Document was postponed for discussion at the next session.

**9. Proposal to amend Annex 1, Appendix 2, paragraph 7.1 (a) and Annex 1, Appendix 4 Definition of multi-compartment equipment and distinguishing marks of multitemp equipment with unconditioned compartments**

*Document:* ECE/TRANS/WP.11/2021/14 (Germany)

64. After some discussion, the Working Party decided to consider again the original proposals in ECE/TRANS/WP.11/2017/6 and informal document INF.13 of the seventy-third session and asked Germany to present a revised proposal, taking into account all the comments made, for a future session.

**10. Proposal to amend Annex 1, Appendix 2, paragraph 7.3.7: Correction of the table**

*Document:* ECE/TRANS/WP.11/2021/15 (Germany)

65. As the proposal was already included in document ECE/TRANS/WP.11/2021/9 by France and adopted, the document was withdrawn.

**11. Proposal to amend Annex 1, Appendix 2, paragraphs 7.3.2, 7.3.3 and 7.3.4: Reference of multitemp calculations**

*Document:* ECE/TRANS/WP.11/2021/16 (Germany)

66. After a few modifications, the proposals were adopted as amended (see annex).

**12. Proposal to amend Annex 1, Appendix 1, paragraphs 6 (a) and (b) and Annex 1, Appendix 2, Model No. 12: Validity of test reports for mechanical refrigeration units**

*Documents:* ECE/TRANS/WP.11/2021/17 (Germany)  
Informal document INF.6 (Transfrigoroute International)

67. Some delegations agreed on the principle of the proposal but were of the opinion that the wording should be improved and certain terms clarified. For others, the proposal was not necessary, as they did not see any benefits with adding 3 more years to the validity of the test reports.

68. It was also mentioned that in some countries, issuing test reports every 6 years may be a way of verifying that new units continued to be manufactured in accordance with the approved prototype.

69. After Germany clarified that the proposal was intended to help small and medium size manufactures and that the extension was only granted if there were no change to major components, it was decided to redraft the proposal with inputs from Spain and to present it at a future session.

70. The representative of Transfrigoroute International presented its proposal for the list of major components and explained that it was very much aligned with the list included in 2021/17 but that the one in INF.6 was structured differently and components were grouped in three categories according to function.

71. It was decided that Germany and Transfrigoroute International should present a final version of the list in a working document for the next session.

**13. Proposals by the Informal Working Group on the improvement of the approval system of equipment and thermal appliances**

*Document:* ECE/TRANS/WP.11/2021/18 (Netherlands)

72. Proposal 1 was withdrawn as it was already included in the adopted proposal in document 2021/9 by France.

73. Proposal 2 was adopted (see annex).

**14. Amendment to Annex 1, Appendix 4**

*Document:* ECE/TRANS/WP.11/2021/20 (United Kingdom)

74. Proposal in the document was not adopted. There was a discrepancy with the terminology used to refer to multi-temperature multi-compartment equipment between the English and the French versions. This discrepancy should be solved before going forward with amendments to the ATP related to this subject.

**15. Temporary ATP certificates for prototype equipment for Field Trial Testing**

*Document:* ECE/TRANS/WP.11/2021/22 (Transfrigoroute International)

75. It was clarified that the scope of the document was to test new technologies on prototypes in a faster way and that these tests should be performed on the road for different climatic conditions and for usage of the system.

76. Some concerns were raised regarding the testing of the prototypes, why it was not possible to get them fully tested before the trial period and why did they need to cross borders. The safety of perishable foodstuffs transported in the prototypes and destined for human consumption was also questioned.

77. Other delegations, while in agreement with the principle of facilitating the development and testing of new technologies, were concerned with the way the proposal was drafted as some cases of misuse might occur. The total number of prototypes were also considered too high and supervision on the total number of units was difficult to carry out effectively.

78. The representative of Transfrigoroute International was invited to submit a modified proposal at the next session, taking into account all the comments made.

**16. Comments and proposal on declaration of conformity (Annex 1, Appendix 2 paragraph 7.3.6) and the dimensioning of Multi-Compartment, Multi-Temperature equipment (MTMC)**

*Document:* Informal document INF.5, Proposal 1 (Transfrigoroute International)

79. As the proposal was presented in a late informal document, the Working Party decided to postpone consideration of it for a future session on the basis of a working document.

## **VII. ATP Handbook (agenda item 6)**

**1. Definition of the independence of a unit taking into account mixed energy source technologies**

*Document:* ECE/TRANS/WP.11/2020/1/Rev.2 (France).

80. As the related proposal for amending the ATP was not adopted, this consequential amendment to the ATP Handbook was rejected.

**2. Amendment to Annex 1, Appendix 2 paragraph 3.2.6 and the ATP Handbook**

*Document:* ECE/TRANS/WP.11/2020/5/Rev.2 (United Kingdom)

81. As the related proposal for amending the ATP was not adopted, this consequential amendment to the ATP Handbook was rejected.

**3. Amendment to paragraph 7.3.6 of Annex 1 Appendix 2 of the ATP Handbook: Treatment of specific application cases using the multi-temperature equipment dimensioning tool**

*Document:* ECE/TRANS/WP.11/2021/11 (France)  
Informal document INF.5, Proposal 2 (Transfrigoroute International),

82. France clarified that the objective of the proposals was to share good practices and to harmonize the application of the provisions of the ATP agreement among contracting parties. While WP.11 was in agreement with this principle, it was considered that the document needed more work and that a calculation methodology could be specified. The proposal was submitted to the vote and was rejected with two votes in favour (France and Spain) and four votes against (Denmark, Germany, Netherlands and United Kingdom).

83. France decided to present a revised proposal at a future session considering all the comments made.

84. Concerning proposal 2 in informal document INF.5, there was agreement on the principle that if ATP rules were not clear, the Working Party should work on redrafting them to achieve harmonized interpretation and application. It was also clarified that the arbitration procedure in article 15 of the ATP agreement should only be used in extreme cases and that conflict among Contracting Parties should be resolved by negotiation whenever possible.

85. It was also suggested that WP.11 should make some efforts seeking information on how the provisions of the agreement are understood and applied by different competent authorities in order to avoid unfair competition and non-uniformed application of the ATP provisions. Also, a clear way of sharing good practices and agreed interpretations should be established.

**4. Amendments to paragraph 6 (c) (iii) of Appendix 1 to Annex 1 of the ATP Handbook: Rules to be observed for the installation of mounted units, units with deflectors, under-frame units or units that can be offset**

*Document:* ECE/TRANS/WP.11/2021/12 (France)

86. Some delegations were of the opinion that the ATP Handbook was intended to explain or clarify provisions in the ATP agreement and as such, could not find a reason to include the proposed comment in the Handbook as it was not related to any ATP provision.

87. It was recognized that the information contained in the proposal could be useful for some field applications and France was invited to consider alternative ways of making this information available to all interested parties, including a revised proposal for a future session.

**5. Amendments to the comments on Appendix 1 of Annex 2 paragraph 4 of the ATP Handbook: Positions of temperature measurement probes during transport**

*Document:* ECE/TRANS/WP.11/2021/13 (France)

88. Although it was recognized that the existing text in the ATP Handbook was not covering all possible situations and that the drafting could be improved, the proposal presented by France was not solving all the problems either. The proposal was put to the vote and rejected with 3 votes in favour (France, Italy and Spain) and 4 votes against (Czechia, Denmark, Germany and United Kingdom).

89. France was invited to draft a revised proposal for the next session with the help of Germany.

**6. Discrepancies between the English and French versions of comment to paragraph 3.2.6 of the ATP Handbook**

*Document:* Informal document INF.11 (Secretariat)

90. The secretariat invited the Working Parties to consider the best way of harmonizing the different language versions of the text. The secretariat was requested to present the document again at the next session.

## **VIII. Reports of informal working groups (agenda item 7)**

**Report of the Informal Working group on the improvement of the approval system for ATP equipment and thermal appliances**

*Document:* Informal document INF.8 (the Netherlands on behalf of the working group)

91. The Working Party took note of the report of the informal working group on the improvement of the approval system for ATP equipment and thermal appliances.

92. The Working Party was informed that the guidance document on the issue of the declaration of conformity (Annex 1, Appendix 2 paragraph 7.3.6) and the dimensioning of Multi-Compartment, Multi-Temperature equipment (MTMC) was published on the UNECE website and could be found at <https://unece.org/sites/default/files/2021-05/Guidance%20document%20MTMC%20-%20Version%205.3.pdf>

93. WP.11 thanked the informal working group for the excellent work done as it facilitates discussions in plenary and improves the quality of the proposals of amendments to the ATP. The mandate of the informal working group on the improvement of the approval system for ATP equipment and thermal appliances was extended to 2022. The possibility of expanding the scope of the mandate of the informal working group in the future was also discussed.



## **IX. Scope of ATP (agenda item 8)**

94. The representative of Transfrigoroute International remarked that in his view, there were three components of the scope of ATP worth considering for expansion:

- (a) Geographical coverage;
- (b) Perishable products covered;
- (c) Life cycle of equipment.

95. The representative of EuroMed informed the Working Party of the growing interest among countries in the EuroMed region in acceding to ATP and in applying the ATP provisions for the national transport of perishable foodstuffs.

96. He also remarked that setting up testing stations in their national territory was a significant problem for these countries and that it would be very helpful if other Contracting Parties were able to offer any guidance or share information material on design, general requirements and financial implications of setting up a testing station. The representative of Denmark was willing to search for and share information on the subject that could be passed on.

## **X. Energy labelling, refrigerants and blowing agents (agenda item 9)**

97. As no document had been submitted under this agenda item, no discussion took place on this subject.

## **XI. Programme of work (agenda item 10)**

### **Dates of the seventy-eighth session**

98. The dates of 3-6 May 2022 (Tuesday to Friday) have been reserved for the seventy-eighth session of WP.11. Deadline for submission of documents is 4 February 2022.

### **Dates of the seventy-ninth session**

99. The dates of 25-28 October 2022 (Tuesday to Friday) have been reserved for the seventy-ninth session of WP.11. Deadline for submission of documents is 29 July 2022.

## **XII. Election of officers (agenda item 11)**

100. The Working Party elected Mr. K. de Putter (Netherlands) as Chair, and Mr. J. M. Bonnal (France) as Vice-Chair for its sessions in 2022. The Working Party thanked the officers and the secretariat for their work, especially for the organization of the session under the restrictions imposed by the COVID-19 pandemic.

## **XIII. Other business (agenda item 12)**

101. The Working Party noted the Inland Transport Committee (ITC) report ECE/TRANS/294 paragraph 18 on the rules of procedure of the Working Parties. In an effort to align the rules governing participation in the sessions and the adoption of amendments with those recently adopted for the ITC, the Working Party requested the secretariat to prepare for the next session a comparison between the rules of procedure of the Committee and the Working Party on those items.

#### **XIV. Adoption of the report (agenda item 13)**

102. The WP.11 adopted the report on its seventy-seventh session based on a draft prepared by the secretariat.

103. In accordance with the special procedures on decision-making for formal meetings with remote participation adopted by the Executive Committee (ECE/EX/2020/L.12), main decisions taken by WP.11 during the session were published and notified to all the permanent missions in Geneva (<https://unece.org/silence-procedure>). After publication, as no objections were received, decisions were deemed adopted.

## 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  $\lambda$  for the insulation has a value of 0,025 W/m·°C

$$d = S_i \times \Delta T \times \lambda / W$$

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  $\lambda$  may be used in this method if the actual value of  $\lambda$  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  $\lambda$  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  $\lambda$  for the insulation has a value of 0,035 W/m °C

$$d = S_e \times \Delta T \times \lambda / W$$

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  $\lambda$  may be used in this method if the actual value of  $\lambda$  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  $\lambda$  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 " $2 * \frac{|P_{nom-max,1} - P_{nom-max,2}|}{P_{nom-max,1} + P_{nom-max,2}} \leq 0,035$ " 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  $S_{chilled-comp}$  to read as follows:

" $S_{chilled-comp}$  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  $S_{frozen-comp}$  to read as follows:

" $S_{frozen-comp}$  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)