




---

**Economic Commission for Europe**
**Inland Transport Committee**
**Working Party on the Transport of Dangerous Goods**
**Joint Meeting of the RID Committee of Experts and the  
 Working Party on the Transport of Dangerous Goods**
**Report of the Joint Meeting of the RID Committee of Experts  
 and the Working Party on the Transport of Dangerous  
 Goods on its autumn 2021 session\***

held in Geneva, on 21 September - 1 October 2021

**Contents**

	<i>Paragraphs</i>	<i>Page</i>
I. Attendance.....	1-3	4
II. Organizational matters .....	4-6	4
III. Adoption of the agenda (agenda item 1) .....	7	5
IV. Tanks (agenda item 2).....	8-18	5
A. Report of the Working Group on Tanks .....	10-17	6
B. Report of the informal working group on the inspection and certification of tanks .....	18	7
V. Standards (agenda item 3).....	19-23	7
A. Information on the work of the Working Group on Standards .....	19-21	7
B. Information on the difficulties in applying a standard referred to in Chapter 6.2	22	7
C. Amendments in square brackets for 6.2.4.1 .....	23	7
VI. Harmonization with the United Nations Recommendations on the Transport of Dangerous Goods (agenda item 4) .....	24-30	8
A. Report of the Ad Hoc Working Group on the Harmonization of RID/ADR/ADN with the United Nations Recommendations on the Transport of Dangerous Goods .....	24	8

---

\* Circulated by the Intergovernmental Organization for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2021-B. Unless otherwise indicated, the other documents referred to in this report under the symbol ECE/TRANS/WP.15/AC.1/ followed by the year and a serial number were circulated by OTIF under the symbol OTIF/RID/RC/ followed by the year and the same serial number.

B.	Description of the hazard of Class 9 .....	25	8
C.	Additional proposal concerning harmonization with the United Nations Recommendations on the Transport of Dangerous Goods.....	26	9
D.	Amendments to report ECE/TRANS/WP.15/AC.1/160, annex II .....	27	9
E.	Need for transitional measures.....	28-30	9
VII.	Proposals for amendments to RID/ADR/ADN (agenda item 5) .....	31-46	9
A.	Pending issues.....	31-33	9
1.	Pressure receptacles approved by the Department of Transportation of the United States of America .....	31	9
2.	Updated information on packing instruction P200 and ISO 18119.....	32	9
3.	Orange coloured plate marking of wagons and vehicles carrying tanks or containers with a low capacity .....	33	10
B.	New proposals.....	34-46	10
1.	Activities of in-house inspection services in accordance with RID/ADR 6.2.2.11 and 6.2.3.6.1 .....	34-35	10
2.	Transport of electric energy systems containing lithium ion batteries .....	36-37	10
3.	PACKAGINGS, DISCARDED, EMPTY, UNCLEANED (UN 3509).....	38	11
4.	Amendment of RID/ADR 1.1.3.2 (e) .....	39-40	11
5.	Amendments to transitional measures .....	41	11
6.	Inclusion of UN Nos. 1011, 1075, 1969 and 1978 in RID/ADR 6.2.3.9.4.....	42	11
7.	Amendment to special provision 668 .....	43	11
8.	Refrigerating machines and heat pumps.....	44	12
9.	Paints and printing inks classified as environmentally hazardous substance of UN 3082 and the requirements for performance tests .....	45-46	12
VIII.	Interpretation of RID/ADR/ADN (agenda item 6).....	47-53	12
A.	Clarification on RID/ADR 5.3.2.2.1 - specifications for the orange-coloured plates .....	47	12
B.	Interpretation issue concerning special provision 249 and transport related to the recycling of lighters.....	48	12
C.	Competent authority approvals for organic peroxides and self-reactive substances not listed and interpretation of “not listed” and “country or origin”.....	49-51	12
D.	Section 1.5.1 of RID/ADR/ADN: multilateral agreements.....	52	13
E.	Clarification on the UN Model Regulations (and RID/ADR) 6.2.2.7.5 – placement of cylinder marking groups.....	53	13
IX.	Reports of informal working groups (agenda item 7) .....	54-	13
X.	Accidents and risk management (agenda item 8).....	55	14
XI.	Election of officers for 2022 (agenda item 9).....	56	14
XII.	Future work (agenda item 10) .....	57	14
XIII.	Any other business (agenda item 11) .....	58-59	14

A.	Request for consultative status by the European Recycling Industries' Confederation (EuRIC).....	58	14
B.	Tributes to Mr. E. Sigrist (Cefic).....	59	14
XIV.	Adoption of the report (agenda item 12).....	60	14

## Annexes

I.	Report of the Working Group on Tanks**.....		15
II.	Adopted texts.....		16

---

\*\* For practical reasons, annex I has been published as addendum, with the symbol ECE/TRANS/WP.15/AC.1/162/Add.1.

## I. Attendance

1. The Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods of the United Nations Economic Commission for Europe was held in Geneva from 21 September to 1 October 2021, with Mr. C. Pfauvadel (France) as Chair and Ms. S. García Wolfrum (Spain) as Vice-Chair.
2. In accordance with rule 1 (a) of the rules of procedure of the Joint Meeting, (ECE/TRANS/WP.15/AC.1/112/Add.2), representatives of the following countries participated as full members at the session: Austria, Belgium, Czechia, Denmark, Finland, France, Germany, Ireland, Italy, Latvia, Luxembourg, Netherlands, Norway, Poland, Portugal, Republic of Moldova, Russian Federation, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States of America.
3. In accordance with rules 1 (c) and (d) of the rules of procedure, the following organisations were represented in a consultative capacity:
  - (a) European Union (European Commission and European Union Agency for Railways);
  - (b) International non-governmental organizations: Council on Safe Transportation of Hazardous Articles (COSTHA), International Association of Dangerous Goods Safety Advisers (IASA), European Chemical Industry Council (Cefic), European Committee for Standardization (CEN), European Conference of Fuel Distributors (ECFD), European Council of the Paint, Printing Ink and Artists' Colours Industry (CEPE), European Industrial Gases Association (EIGA), European Recycling Industries' Confederation (EuRIC), Fuels Europe, International Association of the Body and Trailer Building Industry (CLCCR), International Dangerous Goods and Containers Association (IDGCA), International Organization of Motor Vehicle Manufacturers (OICA), International Road Transport Union (IRU), International Confederation of Container Reconditioners (ICCR), International Tank Container Organisation (ITCO), Liquid Gas Europe (European LPG Association), World LPG Association (WLPGA), Union of Private Wagons (UIP) and International Union of Railways (UIC).

## II. Organizational matters

4. The Joint Meeting was informed that due to a combination of COVID-19 response measures, financial constraints triggered by the United Nations liquidity crisis, ongoing renovation work at the Palais des Nations under the strategic heritage plan and technical constraints related to the number of meeting rooms available for hybrid meetings, the share of sessions with interpretation allocated to the Economic Commission for Europe had been reduced from the usual three sessions per day in parallel to just one per day for the first half of 2021, and furthermore the hybrid meetings had been limited to two hours instead of the usual three hour meetings. Therefore, several meetings had been cancelled or postponed in the first semester.
5. Since July, the United Nations have partially lifted the sanitary restrictions and aim to revert back to "business as usual" as soon as possible. The Joint Meeting was informed that the measures implemented by UNECE to protect public health by organising hybrid sessions allowing the participation remotely or in person (meaning hybrid sessions) would be continued at least until end of December 2021. Three hybrid sessions per day in parallel are again possible but under certain conditions, such as the social distancing in the conference rooms and wearing of masks by participants physically present. Furthermore, each of the morning or afternoon hybrid meetings is again possible for a duration of three hours but has a considerable budgetary impact.
6. Taking into account those factors and the ongoing travel restrictions still in force in some countries and regions, and after consultation with the secretariat and conference services of the United Nations Office at Geneva, the officers of the Joint Meeting agreed to adapt again the format of the hybrid session.

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

*Documents:* ECE/TRANS/WP.15/AC.1/161  
ECE/TRANS/WP.15/AC.1/161/Add.1  
*Informal documents:* INF.1, INF.2 and INF.22 (Secretariat)

7. The Joint Meeting adopted the agenda proposed by the secretariat in documents ECE/TRANS/WP.15/AC.1/161 and Add.1 as updated by informal document INF.2 after amending it to take account of informal documents INF.1 to INF.51.

### IV. Tanks (agenda item 2)

*Documents:* ECE/TRANS/WP.15/AC.1/2021/23/Rev.1 (United Kingdom)  
ECE/TRANS/WP.15/AC.1/2021/24/Add.1 (Secretariat)  
ECE/TRANS/WP.15/AC.1/2021/27 (UIP)  
ECE/TRANS/WP.15/AC.1/2021/29 (UIC)  
ECE/TRANS/WP.15/AC.1/2021/34 (Switzerland)  
ECE/TRANS/WP.15/AC.1/2021/36 (Liquid Gas Europe)  
ECE/TRANS/WP.15/AC.1/2021/42 (Netherlands)  
ECE/TRANS/WP.15/AC.1/2021/43 (France)  
ECE/TRANS/WP.15/AC.1/160, annex II (Secretariat)  
ECE/TRANS/WP.15/AC.1/160/Add.1 (Report of the Working Group on Tanks)

*Informal documents:* INF.3 (Netherlands)  
INF.5 (CTIF)  
INF.6 (CLCCR)  
INF.10 (Poland)  
INF.11 (UIP)  
INF.13 (CEN)  
INF.17 (Switzerland)  
INF.23 (United Kingdom)  
INF.27 and INF.28 (Germany)  
INF.29 (EIGA)  
INF.32 (Chair of the Ad-hoc working group)  
INF.35 (France)  
INF.38 (Switzerland)  
INF.40, INF.41 and INF.42 (United Kingdom)  
INF.43 (France)

8. The Joint Meeting welcomed document ECE/TRANS/WP.15/AC.1/2021/34 and agreed to keep it as a guidance document on the inspection and certification of tanks and to make the document or a revised version available on the websites of OTIF and UNECE. It was agreed that informal document INF.17 needed some further discussion in the informal working group. The representative of Switzerland invited the Joint Meeting to send him further comments.

9. After an introduction in plenary, consideration of the documents under agenda item 2 was entrusted to the Working Group on Tanks that met from 27 to 29 September 2021 with Mr. A. Bale (United Kingdom) as Chair. Informal documents INF.5 and INF.29 on marking issues were kept for consideration in the plenary session (see para. 20 below). On the amendments to Chapter 6.8 proposed in annex II of report ECE/TRANS/WP.15/AC.1/160, on the basis of the recommendations made by the Working Group on Tanks, the Joint Meeting agreed to remove the square brackets in 6.8.2.6.2 and to keep in square brackets the amendments to 6.8.2.2.4 awaiting the decision of the RID Committee of Experts' standing working group.

## A. Report of the Working Group on Tanks

*Informal documents:*      INF.47/Rev.1 (Liquid Gas Europe)  
                                 INF.48 (France)  
                                 INF.49 (Report of the Working Group on Tanks)  
                                 INF.50 (United Kingdom)  
                                 INF.51 (France)

10. The Joint Meeting noted in informal document INF.49 the outcome of the Working Group on Tanks whose report is reflected in annex I as addendum 1 to this report. It adopted proposals 1 to 18, amended as follows in paragraphs 11 to 17 below (see annex II).

11. On item 1, the Joint Meeting considered proposal 7 and agreed to replace in the last sentence "either the shell" by "either the cylinder shell" and in proposal 9 to correct the reference to paragraph 6.8.1.5. For the application of ADR 6.8.1.5.1 and 6.8.1.5.4, the Joint Meeting adopted the new notes in informal document INF.48 as amended. The Joint Meeting also agreed to remove the remaining square brackets in the amendments proposed in ECE/TRANS/WP.15/AC.1/2021/23/Rev.1. The representative of the United Kingdom expressed his preference to keep the last sentence in 6.8.1.5.3 (b) and 6.8.1.5.4 (b) still in square brackets but agreed to remove the brackets at this time, pending further discussions in a meeting of the London informal working group on 14 and 15 December 2021, as suggested in informal document INF.50. A possible official document would be submitted to the Joint Meeting for consideration at its March 2022 session.

12. On item 2, the Joint Meeting agreed with the recommendation of the working group to remove in ECE/TRANS/WP.15/AC.1/2021/24/Add.1 the remaining square brackets in the amendments to chapters 3.2, Table A, and to adopt the amendments.

13. On item 3, the Joint Meeting noted no objection to go forward with the new chapter 6.9 on requirements for the design, construction, inspection and testing of portable tanks with shells made of fibre reinforced plastics materials. It was agreed to remove the remaining square brackets in document ECE/TRANS/WP.15/AC.1/2021/24/Add.1 and to adopt the new chapter 6.13 in ADR together with two transitional measures, as recommended by the working group on tanks.

14. On item 4, the Joint Meeting considered both options proposed in informal document INF.49 and agreed by majority to go forward with option 2, together with the consequential amendments to 6.8.2.4.3.

15. On proposal 16 in item 5, the Joint Meeting adopted the additional amendments proposed in informal document INF.51. On the new provisions proposed in informal document INF.47/Rev.1 for the marking of tanks equipped with safety valves, the Joint Meeting agreed with the principles that a mark is required, consisting of a white square mark with minimum dimensions of 250 mm × 250 mm and with the letters "SV" (at least 120 mm high) in black. Furthermore, the mark shall be weather-resistant and shall not become detached from its mount in the event of 15 minutes' engulfment in fire. The representative of Liquid Gas Europe volunteered to redraft the proposal on the basis of the text in informal document INF.47/Rev.1 and to submit it as an official document for the next session in March 2022, thus allowing delegates to consult the parties involved in such transport. Delegations who provided drafting comments were invited to send those to the representative of Liquid Gas Europe sufficiently in advance of the deadline for the submission of official documents to the next session (see paragraph 57 below).

16. The Joint Meeting noted the request by the OTIF secretariat to clarify whether the new provisions for 6.8.3.2.9 should also be partially applicable for tank-wagons equipped with safety valves on a voluntary basis and recommended that the RID Committee of Experts' standing working group should consider this subject at its forthcoming session.

17. Due to lack of time, not all the documents could be considered by the Working Group on Tanks (see annex I, paragraph 3). Authors of the remaining documents were invited to inform the secretariat about their preferred follow-up of the documents concerned.

## **B. Report of the informal working group on the inspection and certification of tanks**

*Informal document:* INF.50 (United Kingdom)

18. The Joint Meeting noted the summary report of the inter-sessional meetings of the informal working group on the inspection and certification of tanks held on 8-9 June and 8-9 July 2021.

## **V. Standards (agenda item 3)**

### **A. Information on the work of the Working Group on Standards**

*Document:* ECE/TRANS/WP.15/AC.1/2021/38 (CEN)

*Informal documents:* INF.12, and INF.13 (CEN)  
INF.15 and Add.1 (Report of the Working Group on Standards)

19. The Joint Meeting adopted the proposed amendments in informal documents INF.15 and Add.1 (see annex II).

20. The Joint Meeting noted the amendments proposed in informal document INF.13 and agreed to entrust it to the Working Group on Tanks, which met remotely from 27 to 29 September 2021.

21. The representative of CEN volunteered to submit an official document for consideration and adoption at the next session in March 2022, taking into account the comments by the Working Group on Tanks.

### **B. Information on the difficulties in applying a standard referred to in Chapter 6.2**

*Document:* ECE/TRANS/WP.15/AC.1/2021/41 (France)

*Informal document:* INF.25 (CEN)

22. The Joint Meeting noted the information in document ECE/TRANS/WP.15/AC.1/2021/41 on difficulties in applying standard EN ISO 11118. The representative of CEN announced that the concerns raised were forwarded to the concerned ISO Technical Committee and were expected to be discussed at the plenary meeting due to be held on 20-21 October 2021 (see informal document INF.25). He invited all delegations to send further comments to their national standard bodies following the work of ISO or directly to him. He offered to report back to the Joint Meeting at its next session.

### **C. Amendments in square brackets for 6.2.4.1**

*Document:* ECE/TRANS/WP.15/AC.1/160, annex II (Secretariat)

23. The Joint Meeting agreed to keep in square brackets the standards listed in the amendments to 6.2.4.1 proposed in report ECE/TRANS/WP.15/AC.1/160, annex II awaiting confirmation by the representative of Italy.

## VI. Harmonization with the United Nations Recommendations on the Transport of Dangerous Goods (agenda item 4)

### A. Report of the Ad Hoc Working Group on the Harmonization of RID/ADR/ADN with the United Nations Recommendations on the Transport of Dangerous Goods

*Documents:* ECE/TRANS/WP.15/AC.1/2021/24 and Add.1 (Secretariat)

*Informal documents:* INF.19 (Secretariat)  
INF.24 (Secretariat of OTIF)

24. The Joint Meeting took note of the Ad Hoc Working Group's report ECE/TRANS/WP.15/AC.1/2021/24 and Add.1, and considered one by one the amendments proposed for harmonization with the provisions of the Model Regulations annexed to the twenty-second revised edition of the UN Recommendations on the Transport of Dangerous Goods. It adopted the proposed amendments in document ECE/TRANS/WP.15/AC.1/2021/24/Add.1, subject to some modifications (see annex II) and the comments which follow:

- (a) On the oral proposal to amend in 1.2.1 new sub-paragraph (d) of the definition for "Service equipment" by removing the comma between "porous" and "absorbent", the Joint Meeting preferred to keep the comma as that would cover a broader spectrum of materials (i.e. porous, absorbent and adsorbent ones). The representative of Sweden volunteered to submit a proposal for amendments to the UN Sub-Committee on the Transport of Dangerous Goods (TDG Sub-Committee) for further discussion.
- (b) On the proposed options for the new entries of new UN No. 3550 in Table A of Chapter 3.2, the Joint Meeting agreed to remove entry B1 (in column 9a) and to keep (in column 16) only V15 (ADR) and W15 (RID) respectively (see annex II). In this respect, it was also agreed to remove in 4.1.4.2, IBC07 new special provision B1 and in 7.2.4 the square brackets.
- (c) The Joint Meeting adopted the corrections in informal document INF.19 (see annex II). On the outcome of the discussion of the TDG Sub-Committee at its July 2021 session on the use of "mass" in 6.2.1.5.4 instead of "weight", the Joint Meeting agreed to keep "weight" in line with the decision by the TDG Sub-Committee.
- (d) Noting that the Working Group on Tanks would meet during the session, the Joint Meeting preferred to adopt later the proposed amendments to Chapters 4.2, 6.7 and 6.9, as well as the tank provisions proposed for the new UN No. 3550 in columns (12) and (13) of Table A, taking into account the outcome of the group.
- (e) The Joint Meeting adopted the editorial amendments proposed in informal document INF.24 (see annex II). Following an exchange of views on the definitions in 6.9.2.1 of "Filament winding" and "FRP tank", the Joint Meeting agreed to replace "heads" by "ends (heads)" and concluded that the Working Group on Tanks needed to clarify if the ends (heads) of FRP tanks might be made from a different material than FRP.

### B. Description of the hazard of Class 9

*Document:* ECE/TRANS/WP.15/AC.1/2021/28 (Secretariat of OTIF)

25. The Joint Meeting adopted the proposed amendments to 5.2.2.2.2 to clarify the description of Class 9 hazard (see annex II).



### C. Additional proposal concerning harmonization with the United Nations Recommendations on the Transport of Dangerous Goods

*Informal document:* INF.9 (EIGA)

26. The Joint Meeting adopted the additional proposal in informal document INF.9 (see annex II).

### D. Amendments to report ECE/TRANS/WP.15/AC.1/160, annex II

*Informal document:* INF.31 (Secretariat of OTIF)

27. The Joint Meeting adopted the editorial amendments proposed in informal document INF.31 to report ECE/TRANS/WP.15/AC.1/160, annex II.

### E. Need for transitional measures

*Informal documents:* INF.14 (Sweden)  
INF.21 and INF.39 (EIGA)

28. The Joint Meeting adopted the new transitional measures for electronic detonators proposed in informal document INF.14 (see annex II). Additionally, the representative of Sweden announced her intention to prepare a multilateral agreement on this subject to solve the issue until the entry into force of the RID/ADR edition 2023. Several delegations welcomed that initiative by Sweden.

29. The Joint Meeting considered informal document INF.21 and agreed on the need to insert transitional measures related to the adopted amendments to 6.2.1.5.2, 6.2.2.7.3 (k) and (l), and 6.2.2.11. The representative of France reminded the Joint Meeting to also include a transitional measure related to 6.2.3.9.8, which was adopted in the session. The representative of EIGA volunteered to prepare a detailed proposal for such transitional measures. As the transitional provisions for the amendments to 6.2.1.5.2, 6.2.2.7.3 (k) and (l) and 6.2.2.11 would also be necessary for the UN Model Regulations the representative of EIGA was requested to also submit a document to the TDG Sub-Committee.

30. The Joint Meeting adopted the transitional measures proposed by EIGA in informal document INF.39 as amended (see annex II).

## VII. Proposals for amendments to RID/ADR/ADN (agenda item 5)

### A. Pending issues

#### 1. Pressure receptacles approved by the Department of Transportation of the United States of America

*Document:* ECE/TRANS/WP.15/AC.1/2021/33 (Secretariats of OTIF and UNECE)

31. The Joint Meeting adopted the amendments proposed in document ECE/TRANS/WP.15/AC.1/2021/33 to report ECE/TRANS/WP.15/AC.1/160, annex II. It was agreed to also remove at the end of the same 5.4.1.1.3.2 the square brackets (see annex II).

#### 2. Updated information on packing instruction P200 and ISO 18119

*Informal documents:* INF.8 and INF.16 (EIGA)

32. The Joint Meeting noted the updated information provided by EIGA on test periods for battery vehicles filled with certain gases in accordance with packing instruction P200 and on the progress of work on an amendment to the note in the table of 6.2.4.2 limiting the application of standard EN ISO 18119.

**3. Orange coloured plate marking of wagons and vehicles carrying tanks or containers with a low capacity**

*Document:* ECE/TRANS/WP.15/AC.1/2021/40 (Switzerland)

*Informal document:* INF.44 (Switzerland)

33. Some delegations raised concern on the proposed amendment to replace in 5.3.2.1.5 the words "bulk container" by "container for carriage in bulk". As proposed in paragraph 4 of document ECE/TRANS/WP.15/AC.1/2021/40, the representative of Switzerland submitted informal document INF.44 proposing other necessary amendments to the French version of RID/ADR/ADN. The secretariat noted that modifications were also necessary in the German version. The Joint Meeting adopted the amendments to 5.3.2.1.5 proposed in document ECE/TRANS/WP.15/AC.1/2021/40 as well as the consequential amendments in informal document INF.44 (see annex II).

**B. New proposals**

**1. Activities of in-house inspection services in accordance with RID/ADR 6.2.2.11 and 6.2.3.6.1**

*Document:* ECE/TRANS/WP.15/AC.1/2021/31 (Germany)

*Informal document:* INF.30 (EIGA)

34. The Joint Meeting discussed the proposal by Germany on the activities of in-house inspection services. Most delegates who took the floor supported the need to clarify the situation and to agree on a uniform practice within the contracting states/parties but were of the opinion that the current practice did not cause issues and that there was no urgency. It was agreed to carefully consider this subject taking account of the ongoing discussions in the London informal working group on the inspection and certification of tanks.

35. Referring to informal document INF.30, the representative of EIGA recalled that current practice of the gas industry was to periodically inspect cylinders by an in-house inspection service under the control of a Type A body. Delegations were invited to send further comments to the representative of Germany, who volunteered to come back with an updated proposal based on the comments received and the outcome of the London working group.

**2. Transport of electric energy systems containing lithium ion batteries**

*Document:* ECE/TRANS/WP.15/AC.1/2021/32 (Sweden)

36. The proposal received a number of comments on the need and urgency to amend RID/ADR regarding the carriage of mobile electric energy systems. The Joint Meeting noted the recent discussion of the TDG Sub-Committee on the definition of "cargo transport unit". It recalled the difficulties already encountered in the past in applying the provisions for lithium batteries installed in cargo transport units (e.g. informal document INF.22 of the Joint Meeting in March 2019). Instead of a limitation of the weight of batteries, several delegates supported the idea to connect a possible exemption with a limit of the carriage of electric energy storage systems based on their total energy content instead of the mass of the battery. It was also proposed to take into account similar RID/ADR limitations for gasoil, diesel fuel or gas and the specific risks of this kind of energy resources. The representative of Germany also suggested listing explicitly objects in the scope of exemption provision in 1.1.3.1 (c), when considering the afore-mentioned limitation.

37. Following the discussion, the representative of Sweden invited all delegates to send her further comments on the document. She volunteered to prepare a revised proposal on a

special provision including all necessary requirements, for consideration at the next session taking into account the comments received. It was also noted that the Working Party on the Transport of Dangerous Goods (WP.15) established at its May 2021 session an informal working group to discuss electrified vehicles for the carriage of dangerous goods. Interested delegates were invited to participate.

### 3. PACKAGINGS, DISCARDED, EMPTY, UNCLEANED (UN 3509)

*Document:* ECE/TRANS/WP.15/AC.1/2021/44 (Italy)

38. Most delegates who took the floor raised concern on the insertion into RID/ADR/ADN of references to other legislation which would require constant tracking of changes in the regulations or did not support the need for clarifications to UN No. 3509. There was a general opinion that the IMDG was clear in this respect. The Joint Meeting recalled the historical background of UN 3509 and did not support the amendments to 4.1.4.1 to avoid a precedent.

### 4. Amendment of RID/ADR 1.1.3.2 (e)

*Document:* ECE/TRANS/WP.15/AC.1/2021/39 (Ireland)

*Informal document:* INF.36 (United Kingdom)

39. The Joint Meeting followed with interest a presentation by Ireland on the carriage of live aquatic animals in fish tanks with special equipment using compressed air or oxygen to provide live support, supplementing document ECE/TRANS/WP.15/AC.1/2021/39 proposing an amendment to RID/ADR 1.1.3.2 (e). As an alternative solution, the representative of the United Kingdom preferred to insert a new 1.1.3.2 (i) as proposed in informal document INF.36. Several delegates felt that the scope of these exemptions was still too broad and that the proposed amendments needed to be clarified with respect to the carriage of cylinders with open valves and limited to compressed air or oxygen. Others preferred to consider a possible solution like special provision 396 for the transport of transformers (see document ECE/TRANS/WP.15/AC.1/2021/24/Add.1) or the use of 5.5.4 on dangerous goods contained in equipment in use or intended for use during carriage.

40. Following the discussion, the representative of Ireland volunteered to study in detail the options proposed and to come back with a new proposal for consideration at the spring 2022 session. The Chair offered to submit in parallel a request for interpretation of 5.5.4 to the TDG Sub-Committee for consideration at its forthcoming session in December 2021.

### 5. Amendments to transitional measures

*Informal document:* INF.18 (Secretariat)

41. The Joint Meeting agreed on the deletions of the outdated transitional provisions as proposed in informal document INF.18 (see annex II).

### 6. Inclusion of UN Nos. 1011, 1075, 1969 and 1978 in RID/ADR 6.2.3.9.4

*Informal document:* INF.33 (Liquid Gas Europe)

42. Following an exchange of views on the proposed amendment to 6.2.3.9.4, the representative of Liquid Gas Europe volunteered to submit an official document for consideration at the next Joint Meeting in March 2022, including a detailed justification and the background of the current provisions.

### 7. Amendment to special provision 668

*Document:* ECE/TRANS/WP.15/AC.1/2021/30 (IASA)

43. Most delegations did not support the proposed amendment to special provision 668 and felt that the wording was too broad and needed to be limited explicitly to construction site activities or to bitumen or other similar substances. The representative of IASA offered to submit a revised proposal including a detailed justification to the Joint Meeting for consideration at its forthcoming session.

## **8. Refrigerating machines and heat pumps**

*Document:* ECE/TRANS/WP.15/AC.1/2021/25 (IASA)

*Informal document:* INF.45 (IASA)

44. Some delegations who took the floor expressed their support in principle but preferred to address this subject first in the TDG Sub-Committee with an amendment to the UN Model Regulations. Others suggested going forward in the meantime with an amendment to extend the current transitional measure in 1.6.1.46 for heat pumps or with the insertion into RID/ADR of a general note on the similarity of heat pumps and refrigerating machines. Finally, the Joint Meeting adopted the amendments to special provisions 119 and 291 proposed in informal document INF.45, as amended (see annex II).

## **9. Paints and printing inks classified as environmentally hazardous substance of UN 3082 and the requirements for performance tests**

*Document:* ECE/TRANS/WP.15/AC.1/2021/37 (CEPE)

*Informal documents:* INF.26 and INF.46 (CEPE)  
INF.37 (Norway)

45. Recalling the discussion on this subject at its previous session, the Joint Meeting noted general support on the new transitional provisions to Chapter 1.6 proposed by CEPE in ECE/TRANS/WP.15/AC.1/2021/37. Several delegates raised concern on the insertion of a reference in RID/ADR to other legislations and preferred to also remove the proposed subparagraph (c) with the reference to "GHS/CLP". Following the discussion, the Joint Meeting adopted the transitional provision as set out in proposal 1 of informal document INF.46 as amended (see annex II).

46. The Joint Meeting welcomed the initiative by Norway in informal document INF.37 about a multilateral agreement on environmentally hazardous substances of UN No. 3082. The representative of Norway volunteered to revise multilateral agreements M341 and RID 7/2021 on the basis of the decision on informal document INF.46. RID/ADR contracting states/parties were invited to countersign the new multilateral agreements.

# **VIII. Interpretation of RID/ADR/ADN (agenda item 6)**

## **A. Clarification on RID/ADR 5.3.2.2.1 - specifications for the orange-coloured plates**

*Document:* ECE/TRANS/WP.15/AC.1/2021/26 (United Kingdom)

47. The Joint Meeting acknowledged the absence of specific provisions or standards to test the detachment of orange-coloured plates in the event of a 15 minutes' engulfment in fire. The representative of Spain offered to share their national requirements applicable for the testing.

## **B. Interpretation issue concerning special provision 249 and transport related to the recycling of lighters**

*Informal document:* INF.4 (France)

48. The Joint Meeting noted neither a specific concern on this subject in other RID/ADR contracting states/parties nor a need for additional provisions on the related carriage of lighter flints as detached parts.

## **C. Competent authority approvals for organic peroxides and self-reactive substances not listed and interpretation of "not listed" and "country or origin"**

*Informal document:* INF.7 (Cefic)

49. The Joint Meeting agreed that diluted substances should be considered as "not listed" when in lower concentration than the concentration range provided in the lists of 2.2.41.4 or 2.2.52.4. The Joint Meeting also confirmed the interpretation that when a product is listed based on old test data or read-across with similar products in the early days and new test data show another classification, carriage in accordance with the new classification should be done with competent authority approval until the list is updated accordingly.

50. The delegations who spoke were of the opinion that the competent authority in charge of issuing the approval for the classification and conditions of carriage is the competent authority of the RID/ADR contracting state/party of origin of the transport operation meaning the country from which the goods are transported (usually the country where the goods are manufactured). And, if the transport starts in a non-RID/ADR contracting state/party, the competent authority of the first country being a RID/ADR contracting state/party reached by the consignment shall issue the approval. Once approved to either case, the classification and conditions of carriage shall be mutually recognized by other RID/ADR contracting states/parties during the journey.

51. A member of the secretariat recalled the outcome of the Joint Meeting's discussion at its autumn 2018 session based on informal document INF.21 and reminded the Joint Meeting that it had intended to set up an informal working group to clarify the references to competent authorities wherever it is deemed necessary (see ECE/TRANS/WP.15/AC.1/152, paras. 57-59).

#### **D. Section 1.5.1 of RID/ADR/ADN: multilateral agreements**

*Informal document:* INF.20 (Germany)

52. For legal reasons, most delegations were cautious to make RID/ADR multilateral agreements concerning parts 4 and 6 automatically applicable for ADN as those are separate conventions for a specific transport mode. Furthermore, the competent authorities in a country in charge of the conventions and multilateral agreements may not be the same for the different transport modes and might have different national restrictions. Due to differences in the transport modes multilateral agreements should be concluded for each single mode.

#### **E. Clarification on the UN Model Regulations (and RID/ADR) 6.2.2.7.5 – placement of cylinder marking groups**

*Informal document:* INF.34 (WLPGA/Liquid Gas Europe)

53. The delegations who spoke preferred to keep the current status of the provisions in 6.2.2.7.5 on the placement of cylinder marking groups and preferred to await the outcome of the discussion in the TDG Sub-Committee.

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

#### **Update on work of the BLEVE working group**

*Document:* ECE/TRANS/WP.15/AC.1/2021/35 (Spain)

54. The Joint Meeting noted the information by Spain in document ECE/TRANS/WP.15/AC.1/2021/35 on the extended mandate of and the work progress made by the informal working group on measures to prevent boiling liquid expanding vapor explosions (BLEVE). The group was expected to receive feedback from the tank working group on the mandatory fitment of safety valves to tanks carrying flammable liquefied gases (see in annex I to this report the outcome on document ECE/TRANS/WP.15/AC.1/2021/36 listed under item 2 above) and also from WP.15 at its November session. The Joint Meeting agreed to resume discussion on this subject at its March 2022 session.

## **X. Accidents and risk management (agenda item 8)**

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

## **XI. Election of officers for 2022 (agenda item 9)**

56. On a proposal by the representative of Belgium, Mr. C. Pfauvadel (France) and Ms. S. García Wolfrum (Spain) were re-elected as Chair and Vice-Chair respectively for 2022.

## **XII. Future work (agenda item 10)**

57. The Joint Meeting was informed that the next session would be held in Bern from 14 to 18 March 2022 and that the deadline for submission of official documents was 17 December 2021.

## **XIII. Any other business (agenda item 11)**

### **A. Request for consultative status by the European Recycling Industries' Confederation (EuRIC)**

*Document:* ECE/TRANS/WP.15/AC.1/2021/45 (Secretariat)

*Informal document:* INF.3 (EuRIC) of the autumn 2020 session of the Joint Meeting

58. The Joint Meeting noted the information provided by the representative of EuRIC on its status and membership and the activities of the recycling industry. The Joint Meeting endorsed the request for consultative status and welcomed its participation in and contributions to the future sessions.

### **B. Tributes to Mr. E. Sigrist (Cefic)**

59. The Joint Meeting noted that Mr. Erwin Sigrist (Cefic) will retire in November 2021 and will no longer attend future sessions. It acknowledged his contributions over the last two decades and wished him all the best for a long and happy retirement.

## **XIV. Adoption of the report (agenda item 12)**

60. The Joint Meeting adopted the report on its autumn 2021 session and its annexes based on a draft prepared by the secretariat.

## **Annex I**

### **Report of the Working Group on Tanks**

(see ECE/TRANS/WP.15/AC.1/162/Add.1)

**Annex II**

[Original: English and French]

**Adopted texts****I. Draft amendments to RID, ADR and ADN for entry into force on 1 January 2023****Chapter 1.1**

1.1.4.7 Insert the following note after the heading:

“**NOTE:** For carriage in accordance with 1.1.4.7, see also 5.4.1.1.23.”

(Reference document: ECE/TRANS/WP.15/AC.1/2021/33, as amended)

**Chapter 1.2**

1.2.1 The amendment to the definition of “Filler” does not apply to the English version.

(Reference document: informal document INF.44)

**Chapter 1.4**

1.4.2.2.1 (d) Replace “deadline” by “date specified”.

(Reference document: informal document INF.49, item 4, option 2)

1.4.3.3 In (b), replace “date of the next” by “date specified for the next”.

(ADR:) The amendment to (h) does not apply to the English version.

(Reference documents: informal documents INF.49, item 4, option 2 and INF.44)

**Chapter 1.6**

1.6.1.41 Delete and add “1.6.1.41 (Deleted)”.

(Reference document: informal document INF.18)

1.6.1.44 Delete and add “1.6.1.44 (Deleted)”.

(Reference document: informal document INF.18)

1.6.1.46 Delete and add “1.6.1.46 (Deleted)”.

(Reference document: informal document INF.18)

1.6.1 Add the following new transitional measures:

“1.6.1.50 For articles that meet the definition for DETONATORS, ELECTRONIC as described in 2.2.1.4 Glossary of names, and assigned to UN Nos. 0511, 0512 and 0513, the entries for DETONATORS, ELECTRIC (UN Nos. 0030, 0255 and 0456) may continue to be used until 30 June 2025.

1.6.1.51 Adhesives, paint and paint related materials, printing inks and printing ink related materials and resin solutions assigned to UN 3082 environmentally hazardous substance, liquid, N.O.S., packing group III in accordance with 2.2.9.1.10.6 as a consequence of 2.2.9.1.10.5<sup>1</sup> containing 0.025 % or more of the following substances, on their own or in combination:

- 4,5-dichloro-2-octyl-2H-isothiazol-3-one (DCOIT);
- octhilineone (OIT); and
- zinc pyrithione (ZnPT);



may be carried until 30 June 2025 in steel, aluminium, other metal or plastic packagings, which do not meet the requirements of 4.1.1.3, when carried in quantities of 30 litres or less per packaging as follows:

- (a) In palletized loads, a pallet box or unit load device, e.g. individual packagings placed or stacked and secured by strapping, shrink or stretch-wrapping or other suitable means to a pallet; or
- (b) As inner packagings of a combination packagings with a maximum net mass of 40 kg.”

Footnote 1 to read as follows:

“<sup>1</sup> Commission Delegated Regulation (EU) 2020/1182 of 19 May 2020 amending, for the purposes of its adaptation to technical and scientific progress, Part 3 of Annex VI to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures (fifteenth ATP to the CLP), applicable from 1 March 2022.”

Adapt the following footnotes in chapter 1.6 accordingly.

*(Reference documents: informal documents INF.14 and INF.46, proposal 1, as amended)”*

1.6.2.16 Delete and add “1.6.2.16 *(Deleted)*”.

*(Reference document: informal document INF.18)*

1.6.2 Add the following new transitional measures:

“1.6.2.18 Closed cryogenic receptacles constructed before 1 July 2023 which were subject to the initial inspection and test requirements of 6.2.1.5.2 applicable until 31 December 2022 but which do not however conform to the requirements of 6.2.1.5.2 relating to the initial inspection and test applicable as from 1 January 2023, may continue to be used.

1.6.2.19 Acetylene cylinders constructed before 1 July 2023 which are not marked in accordance with 6.2.2.7.3 (k) or (l) applicable from 1 January 2023 may continue to be used until the next periodic inspection and test after 1 July 2023.

1.6.2.20 Closures of refillable pressure receptacles constructed before 1 July 2023 which are not marked in accordance with 6.2.2.11 or 6.2.3.9.8 applicable from 1 January 2023 may continue to be used.”

*(Reference document: informal document INF.39, as amended)*

(ADR:) 1.6.3.33 Delete and add “1.6.3.33 *(Reserved)*”.

(ADR:) 1.6.3 Add the following new transitional measures:

“1.6.3.56 Fixed tanks (tank-vehicles) and demountable tanks constructed before 1 July 2033 in accordance with the requirements of Chapter 6.9 in force up to 31 December 2022 but which do not however conform to the requirements of Chapter 6.13 applicable as from 1 January 2023, may still be used.

1.6.3.57 Fixed tanks (tank-vehicles) and demountable tanks constructed before 1 January 2024 in accordance with the requirements in force up to 31 December 2022 but which do not, however, conform to the requirements applicable as from 1 January 2023 regarding the fitting of safety valves in accordance with 6.8.3.2.9 may still be used.”

*(Reference document: informal document INF.49, proposals 14 and 17)*

(RID/ADR:) 1.6.4.32 Delete and add “1.6.4.32 *(Deleted)*”.

*(Reference document: informal document INF.18)*

1.6.4 Add the following new transitional measures:

“1.6.4.59 Tank-containers constructed before 1 July 2033 in accordance with the requirements of Chapter 6.9 in force up to 31 December 2022, may still be used.

1.6.4.60 Tank-containers constructed before 1 January 2024 in accordance with the requirements in force up to 31 December 2022 but which do not, however, conform to the requirements applicable as from 1 January 2023 regarding the fitting of safety valves in accordance with 6.8.3.2.9 may still be used.”

*(Reference document: informal document INF.49, proposals 15 and 17)*

**Chapter 1.7**

1.7.2.5 In the first sentence, replace “persons” by “people”.

*(Reference document: informal document INF.19)*

**Chapter 3.3**

SP 119 At the end, add a new note to read as follows:

**“NOTE:** For the purposes of carriage, heat pumps may be considered as refrigerating machines.”

*(Reference document: informal document INF.45, as amended)*

SP 291 At the end, add a new note to read as follows:

**“NOTE:** For the purposes of carriage, heat pumps may be considered as refrigerating machines.”

*(Reference document: informal document INF.45, as amended)*

**Chapter 4.1**

4.1.4.1, P200 In (11), replace the row for “EN 1439:2017” for the following new row:

(7) (ADR:) and (10) ta (b)	EN 1439:[2022]	LPG equipment and accessories - Procedure for checking transportable refillable LPG cylinders before, during and after filling
----------------------------	----------------	--

In (12), 2.1, replace “EN 1439:2017” by “EN 1439:[2022] (or until 31 December 2024, EN 1439:2017)”.

In (12), 3.4, after “EN ISO 14245:2019,” insert “EN ISO 14245:2021,”. Replace “or EN ISO 15995:2019” by “, EN ISO 15995:2019 or EN ISO 15995:2021”.

*(Reference documents: informal documents INF.15 as amended, and INF.15/Add.1)*

**Chapter 4.3**

4.3.2.3.7 In the first paragraph, replace “the deadline for the test or inspection required by 6.8.2.4.2, 6.8.3.4.6 and 6.8.3.4.12has expired” by “the date specified for the inspection required by 6.8.2.4.2, 6.8.2.4.3, 6.8.3.4.6 and 6.8.3.4.12”.

In the second paragraph, replace “the date of expiry of the last periodic inspection” by “the date specified for the next inspection”.

In (a), replace “the expiry of these deadlines” by “the date specified if the inspection due is a periodic inspection in accordance with 6.8.2.4.2, 6.8.3.4.6(a) and 6.8.3.4.12”.

In (b), replace “these deadlines” by “the date specified, if the inspection due is a periodic inspection in accordance with 6.8.2.4.2, 6.8.3.4.6(a) and 6.8.3.4.12”. At the end, replace the full stop by a semicolon.

Add a new item (c) to read as follows:

“(c) for a period not to exceed three months after the date specified, if the inspection due is an intermediate inspection in accordance with 6.8.2.4.3, 6.8.3.4.6 (b) and 6.8.3.4.12.”

*(Reference document: informal document INF.49, item 4, option 2)*

### **Chapter 5.1**

5.1.3 The amendment does not apply to the English version.

*(Reference document: informal document INF.44)*

5.1.3.1 The amendment does not apply to the English version.

*(Reference document: informal document INF.44)*

### **Chapter 5.2**

5.2.2.2.2 In the table, in the subheading for “Class 9 hazard”, delete “, including environmentally hazardous substances”.

*(Reference document: ECE/TRANS/WP.15/AC.1/2021/28)*

### **Chapter 5.3**

(RID:) 5.3.2.1.1 The amendments do not apply to the English version.

*(Reference document: informal document INF.44)*

(ADN:) 5.3.2.1.4 The amendment does not apply to the English version.

*(Reference document: informal document INF.44)*

5.3.2.1.7 The amendment does not apply to the English version.

*(Reference document: informal document INF.44)*

### **Chapter 5.4**

5.4.1.1 Insert the following new 5.4.1.1.23:

“5.4.1.1.23 *Special provisions for refillable pressure receptacles authorized by the United States of America Department of Transportation*

For carriage in accordance with 1.1.4.7, a statement shall be included in the transport document, as follows:

"CARRIAGE IN ACCORDANCE WITH 1.1.4.7.1" or

"CARRIAGE IN ACCORDANCE WITH 1.1.4.7.2", as appropriate.”

*(Reference document: ECE/TRANS/WP.15/AC.1/2021/33)*

### **Chapter 6.2**

6.2.3.9 Insert a new paragraph 6.2.3.9.8 to read as follows:

“6.2.3.9.8 *Marking of closures for refillable pressure receptacles*

6.2.3.9.8.1 Marking shall be in accordance with 6.2.2.11.”

*(Reference document: informal document INF.9)*

6.2.4.1 Amend the table “for closures” as follows:

- For “EN ISO 14245:2019” in column (4) replace “Until further notice” by “Between 1 January 2021 and 31 December 2024”.

- After the row for “EN ISO 14245:2019”, insert the following row:

EN ISO 14245:2021	Gas cylinders – Specifications and testing of LPG cylinder valves – Self-closing	6.2.3.1 and 6.2.3.3	Until further notice	
-------------------	--	---------------------	----------------------	--

- For “EN ISO 15995:2019” in column (4) replace “Until further notice” by “Between 1 January 2021 and 31 December 2024”.

- After the row for “EN ISO 15995:2019”, insert the following row:

EN ISO 15995:2021	Gas cylinders – Specifications and testing of LPG cylinder valves – Manually operated	6.2.3.1 and 6.2.3.3	Until further notice	
-------------------	---	---------------------	----------------------	--

- At the end, insert the following new row:

EN 13799:[2022]	LPG equipment and accessories – Contents gauges for Liquefied Petroleum Gas (LPG) pressure vessels	6.2.3.1 and 6.2.3.3	Until further notice	
-----------------	--	---------------------	----------------------	--

(Reference documents: informal documents INF.15, as amended and INF.15/Add.1)

6.2.4.2 In the table:

- For “EN 14876:2007, in column (3) replace “Until further notice” by “Until 31 December 2024”.

- After the row for “EN 14876:2007”, insert the following row:

EN ISO 23088:2020	Gas cylinders – Periodic inspection and testing of welded steel pressure drums – Capacities up to 1 000 l		Mandatorily from 1 January 2025	
-------------------	---	--	---------------------------------	--

- For “EN 15888:2014”, in column (3), replace “Until further notice” by “Until 31 December 2024”.

- After the row for “EN 15888:2014”, insert the following row:

EN ISO 20475:2020	Gas cylinders – Cylinder bundles – Periodic inspection and testing		Mandatorily from 1 January 2025	
-------------------	--	--	---------------------------------	--

- Delete the rows for “EN 1968:2002 + A1:2005 (except Annex B)”, “EN 1802:2002 (except Annex B)”, “EN ISO 10462:2013”, “EN 1803:2002 (except Annex B)”, “EN 1440:2016 (except Annex C)” and “EN 16728:2016 (except clause 3.5, Annex F and Annex G)”.

- In the rows for “EN ISO 11623:2015” and “EN 14912:2015”, in the last column, replace “Mandatorily from 1 January 2019” by “Until further notice”.

- In the rows for “EN 1440:2016 + A1:2018 + A2:2020 (except Annex C)” and “EN 16728:2016 + A1:2018 + A2:2020”, in the last column, replace “Mandatorily from 1 January 2022” by “Until further notice”.

- In the rows for “EN ISO 18119:2018, EN ISO 10462:2013 + A1:2019” and “EN ISO 10460:2018”, in the last column, replace “Mandatorily from 1 January 2023” by “Until further notice”.

(Reference document: informal document INF.15)

## Chapter 6.8

6.8.2.2.10 In the second paragraph, replace “shall be such as to satisfy the competent authority” by “satisfy the requirements of 6.8.3.2.9”.

(Reference document: informal document INF.49, proposal 18)

- 6.8.2.4.3 In the first paragraph, delete the last sentence (“These intermediate inspections may be performed within three months before or after the specified date.”).

At the end of the third paragraph, after “earlier date”, add “or alternatively a periodic inspection may be performed in accordance with 6.8.2.4.2”.

(Reference document: informal document INF.49, item 4)

- 6.8.2.6.1 In the table, under “For equipment”:

- Insert the following new row after the last row.

EN 13799:[2022]	LPG equipment and accessories – Contents gauges for Liquefied Petroleum Gas (LPG) pressure vessels	6.8.2.2.1 and 6.8.2.2.11	Until further notice	
-----------------	--	--------------------------------	----------------------------	--

(ADR:) In the table, under “For design and construction of tanks”:

- For “EN 12493:2013 + A2:2018”, in column (4) replace “Until further notice” by “Between 1 January 2021 and 31 December 2024”.

- After the row for EN 12493:2013 + A2:2018, insert the following new row:

EN 12493:2020 (except Annex C)	LPG equipment and accessories – Welded steel pressure vessels for LPG road tankers – Design and construction  <i>NOTE: Road tankers is to be understood in the meaning of “fixed tanks” and “demountable tanks” as per ADR.</i>	6.8.2.1, 6.8.2.5, 6.8.3.1, 6.8.3.5, 6.8.5.1 to 6.8.5.3	Until further notice	
--------------------------------------	---	---	----------------------------	--

(Reference document: informal document INF.15, as amended)

- 6.8.3.2.9 Amend to read as follows (RID: right hand column only):

“6.8.3.2.9 Tanks intended for the carriage of flammable liquefied gases shall be fitted with safety valves. Tanks intended for the carriage of compressed gases, non-flammable liquefied gases or dissolved gases, may be fitted with safety valves. Safety valves, where fitted, shall meet the requirements of 6.8.3.2.9.1 to 6.8.3.2.9.5.

- 6.8.3.2.9.1 Safety valves shall be capable of opening automatically under a pressure between 0.9 and 1.0 times the test pressure of the tank to which they are fitted. They shall be of such a type as to resist dynamic stresses, including liquid surge. The use of dead weight or counterweight valves is prohibited. The required capacity of the safety valves shall be calculated in accordance with the formula contained in 6.7.3.8.1 and the safety valve shall conform at least to the requirement of 6.7.3.9.

**NOTE:** For the application of this paragraph, the value “120 % of the MAWP” given in 6.7.3.8.1 shall be replaced by 0.9 times the test pressure of the tank.

Safety valves shall be designed to prevent or be protected from the entry of water or other foreign matter which may impair their correct functioning. Any protection shall not impair their performance.

- 6.8.3.2.9.2 If tanks required to be hermetically closed are equipped with safety valves, these shall be preceded by a bursting disc and the following conditions shall be met:

- (a) The minimum burst pressure at 20 °C, tolerances included, shall be greater than or equal to 1.0 times the test pressure;
- (b) The maximum burst pressure at 20 °C, tolerances included, shall be equal to 1.1 times the test pressure; and

- (c) The bursting disc shall not reduce the required discharge capacity or correct operation of the safety valve.

A pressure gauge or another suitable indicator shall be provided in the space between the bursting disc and the safety valve, to enable detection of any rupture, perforation or leakage of the disc.

- 6.8.3.2.9.3 Safety valves shall be directly connected to the shell or directly connected to the outlet of the bursting disc.
- 6.8.3.2.9.4 Each safety valve inlet shall be situated on top of the shell in a position as near to the transverse centre of the shell as reasonably practicable. All safety valve inlets shall, under maximum filling conditions, be situated in the vapour space of the shell and the devices shall be so arranged as to ensure that the escaping vapour is discharged unrestrictedly. For flammable liquefied gases, the escaping vapour shall be directed away from the shell in such a manner that it cannot impinge upon the shell. Protective devices which deflect the flow of vapour are permissible provided the required safety valve capacity is not reduced.
- 6.8.3.2.9.5 Arrangements shall be made to protect the safety valves from damage caused by the tank overturning or striking overhead obstacles. Where possible, safety valves shall not project outside of the profile of the shell.”

*(Reference documents: informal documents INF.49, proposal 16, as amended and INF.51)*

- (ADR:) 6.8.4, TT11 In the paragraph following the table replace “EN 12493:2013 + A2:2018 (LPG equipment and accessories – Welded steel tanks for liquefied petroleum gas (LPG) – road tankers – design and manufacture)” by “EN 12493:2020 (LPG equipment and accessories – Welded steel pressure vessels for LPG road tankers – Design and construction)”.

*(Reference document: informal document INF.15/Add.1)*

**Document ECE/TRANS/WP.15/AC.1/2021/23/Rev.1 was adopted as corrected in INF.40 (except correction to 1.8.7.1.5) and with the following modifications:**

Remove all square brackets

- 1.6.3.x Number as 1.6.3.54. In the last sentence, replace “Chapter 6.8” by “1.8.6”.

*(Reference document: informal document INF.49, proposal 11)*

- 1.6.3.y Number as 1.6.3.55.

- 1.6.4.x Number as 1.6.4.57. In the last sentence, replace “Chapter 6.8” by “1.8.6”.

*(Reference document: informal document INF.49, proposal 11)*

- 1.6.4.z Number as 1.6.4.58.

- 1.8.6.2.2.2 Modify the first two sentences to read: “The competent authority shall ensure that the inspection body continuously meets the conditions for its approval and shall end it if these conditions are not met.”.

*(Reference document: informal document INF.49, proposal 10)*

- 1.8.6.2.4.3 In the second paragraph, replace “The competent authority” by “Where a competent authority wishes to engage the services of an inspection body already approved by another competent authority to carry out activities related to conformity assessments and inspections on its behalf, then that competent authority”.

*(Reference document: informal document INF.49, proposal 12)*

- 1.8.6.3.3 Modify the note to read as follows:

**“NOTE:** *The following provisions only apply to type A inspection bodies. Type B inspection bodies are not allowed to delegate the activities for which they are approved. For in-house inspection services see 1.8.7.7.2.”*

*(Reference document: informal document INF.49, proposal 1)*

- 1.8.7 In the new note 2, replace “tanks, elements of battery-wagons/battery-vehicles, MEGCs, or pressure receptacles, or structural or service equipment” by “the product (see 1.8.7.1.5)”.

*(Reference document: informal document INF.49, proposal 4)*

- 1.8.7.1.5 Modify the first paragraph to read as follows:

“Type approval certificates, inspection certificates and reports for the products (pressure receptacles, tanks, service equipment and the assembly of the elements, structural equipment and service equipment of battery wagons/battery vehicles or MEGCs), including the technical documentation, shall be kept.”

*(Reference document: informal document INF.49, proposal 3)*

- 1.8.7.2.2.2 In the second sentence, delete “, including the referenced standards.”.

*(Reference document: informal document INF.49, proposal 5)*

- 1.8.7.7.2 Modify the last paragraph to read as follows:

“The in-house inspection service may, in specific cases only, subcontract specific parts of its activities if approved by the inspection body which has authorized it. The subcontractor shall additionally be accredited according to EN ISO/IEC 17025:2017 (except clause 8.1.3) or EN ISO/IEC 17020:2012 (except clause 8.1.3) as an independent and impartial testing laboratory or inspection body in order to perform testing tasks in accordance with its accreditation.”

*(Reference document: informal document INF.49, proposal 2)*

- 6.2.2.12 Modify the second paragraph after the table to read as follows:

“For separate conformity assessments (e.g. cylinder shell and closure) see 6.2.1.4.4.”

*(Reference document: informal document INF.49, proposal 6)*

- 6.2.3.6.1 Modify the second paragraph after the table to read as follows:

“For separate conformity assessments (e.g. cylinder shell and closure) see 6.2.1.4.4. For non-refillable pressure receptacles, separate type approval certificates for either the cylinder shell or the closure shall not be issued.”

*(Reference document: informal document INF.49, proposal 7, as amended)*

- 6.8.1.5 After the first paragraph, add a new note to read as follows:

**“NOTE:** *These provisions apply, subject to the compliance of the inspection bodies with the provisions of 1.8.6, and without prejudice to rights and obligations, in particular notification and recognition, fixed for them by agreements or legal acts (e.g. Directive 2010/35/EU) otherwise binding on RID Contracting States/Contracting Parties of ADR”*

*(Reference document: informal document INF.49, proposal 9)*

- (ADR:) 6.8.1.5.1 (a) At the end, add the following note:

**“NOTE:** *Until 31 December 2028, the type examination shall be performed by an inspection body approved or recognized by the country of registration.”*

*(Reference document: informal document INF.48, proposal 1, as amended)*

(ADR:) 6.8.1.5.4 (a) At the end, add the following note:

**“NOTE:** *Until 31 December 2032, the initial inspection shall be performed by an inspection body approved or recognized by the country of registration.”*

*(Reference document: informal document INF.48, proposal 2, as amended)*

6.8.1.5.5 Delete the note.

*(Reference document: informal document INF.49, proposal 9)*

6.8.1.5.6 In the left-hand column, in the text for ADR, add a new paragraph to read as follows:

*“Exceptional inspections may alternatively be performed in the country of manufacture by an inspection body approved or recognized by the competent authority of the country of manufacture or the country of registration.”*

*(Reference document: informal document INF.49, proposal 13)*

6.8.2.3.2 In the amendment to the fifth paragraph, replace “When the manufacturer of service equipment has carried out a separate type examination and when he requests it” by “When the manufacturer of service equipment had a separate type examination carried out and when the manufacturer requests it”.

*(Reference document: informal document INF.49, proposal 8)*

**Document ECE/TRANS/WP.15/AC.1/2021/24/Add.1 was adopted with the following modifications:**

Remove all square brackets

*Chapter 1.2*

1.2.1 The modification does not apply to the English text.

*Chapter 3.2, table A*

(ADR:) For UN 3550, in column (9a), delete “B1,” and in column (16), delete “V10”.

(RID:) For UN 3550, in column (9a), delete “B1,” and in column (16), delete “W10”.

*Chapter 4.1*

4.1.4.1, P200 In (10), after “(31 bar)”, insert “absolute” (twice).

4.1.4.2, IBC07 Delete the first amendment (special packing provision B1).

4.1.4.2, IBC520 Replace “nor in 2.2.52.4” by “or in 2.2.52.4”.

4.1.4.3, LP906 In (4), replace “the batteries energy content” by “the batteries' energy content”.

*Chapter 4.2*

4.2.5.2.6, T23 In the first proposal of amendment, replace “nor in 2.2.52.4” by “or in 2.2.52.4”.

*Chapter 5.4*

5.4.1.1.21 In the title, replace “entries” by “information”.

The second modification does not apply to the English version.

*Chapter 6.2*

6.2.1.5.2 In paragraphs (d) and (e), replace “code” by “technical code”.

The second modification to (e) does not apply to the English version.



- 6.2.1.5.4 In the first paragraph, replace “mass” by “weight”.
- 6.2.1.6.1 The modification in note 3 does not apply to the English text.  
In note 4, replace “manifold” by “manifolds”.
- 6.2.2.5.1 In the second sentence of the new 6.2.2.5.1, replace “6.2.1.4.3” by “6.2.1.4.4”.
- 6.2.2.7.2 In the new note after (e), replace “6.2.1.4.3 (b)” by “6.2.1.4.4 (b)”.

#### Chapter 6.9

- 6.9.2.1 In the definition of “Filament winding” replace “heads” by “ends (heads)”.  
In the definition of “FRP shell”, delete “storage and”.  
Modify the definition of “FRP tank” to read as follows:  
“*FRP tank* means a portable tank constructed with an FRP shell and ends (heads), service equipment, safety relief devices and other installed equipment;”
- 6.9.2.2.3 (f) Replace “parallel-shell specimen” by “parallel shell-sample”.
- 6.9.2.2.3.1 Replace “frame shell” by “frame”.
- 6.9.2.2.3.4 In the introductory sentence, replace “functions” by “elements”.  
In the note, replace “layers” by “elements”.
- 6.9.2.2.3.5 Replace “internal liner” by “liner” (three times).
- 6.9.2.2.3.7 In the second sentence, replace “Furthermore, welded liners” by “Welded liners”.
- 6.9.2.2.3.11 Replace “internal surface liner” and “internal liner” by “liner”.
- 6.9.2.2.3.14.1 Delete “of Class 3”.
- 6.9.2.3.4 In the penultimate sub-paragraph, replace “that the plies in the shell are below the allowables” by “that the stresses in the plies in the shell are below the allowables”.
- 6.9.2.7.1.3 (a) Replace “internal liners” by “liners”.

#### Chapter 7.3

- 7.3.1.1.3 The modification does not apply to the English version.

#### Chapter 7.5

- 7.5.1.2 In paragraph (a), replace “unit” by “cargo transport unit”.

(Reference documents: informal documents INF.19, INF.24 and INF.49)

#### **Document ECE/TRANS/WP.15/AC.1/2021/43 was adopted with the following modifications:**

- 6.13.2.5 In the penultimate sub-paragraph, replace “that the plies in the shell are below the allowables” by “that the stresses in the plies in the shell are below the allowables”.
- 6.13.2.x Number as 6.13.2.13 and renumber the following paragraphs accordingly.

(Reference document: informal document INF.49, item 3)

#### **Amendments to report ECE/TRANS/WP.15/AC.1/158, Annex II:**

- 5.3.2.1.5 In the note, replace “bulk containers” by “containers for carriage in bulk”.

(Reference document: ECE/TRANS/WP.15/AC.1/2021/40)

**Amendments to report ECE/TRANS/WP.15/AC.1/160, Annex II**

- 1.1.4.7.1 Delete the second sub-paragraph.
- 1.1.4.7.2 Delete paragraph (d).
- 4.1.6.15 In the first table, for “4.1.6.8 Valves with inherent protection”, in column “Reference”, replace “Clause 5.9 of EN ISO 14245:2010 or clause 5.9 of EN ISO 14245:2019” by “Clause 5.9 of EN ISO 14245:2010, clause 5.9 of EN ISO 14245:2019 or clause 5.9 of EN ISO 14245:2021” and replace “Clause 5.10 of EN ISO 15995:2010 or clause 5.10 of EN ISO 15995:2019” by “Clause 5.10 of EN ISO 15995:2010, clause 5.9 of EN ISO 15995:2019 or clause 5.9 of EN ISO 15995:2021”.

*(Reference document: informal document INF.15/Add.1)*

- 5.4.1.1.3.2 Remove the square brackets.
- In (a) and, (b), replace “will be” by “is”. In (c), replace “shall be” by “is”.

- 6.8.2.6.2 Remove the square brackets.

(RID:) 7.4 / (ADR:) 7.4.1 Replace “authorisation” by “approval”.

*(Reference documents: ECE/TRANS/WP.15/AC.1/2021/33 and informal document INF.31)*

**II. Corrections to RID, ADR and ADN 2021**

**Chapter 2.5, 2.5.3.2.4, entry for “ISOPROPYL sec-BUTYL PEROXYDICARBONATE+DI-sec-BUTYL PEROXYDICARBONATE+DI-ISOPROPYL PEROXYDICARBONATE”, column “Concentration”**

*For  $\leq 32 + \leq 15 - 18 \leq 12 - 15$  read  $\leq 32 + \leq 15 - 18 + \leq 12 - 15$*

*(Reference document: informal document INF.19)*

---