



# Economic and Social Council

Distr.: General  
22 September 2023

Original: English

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## 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 2023 session

### Report of the Working Group on Tanks

1. The Working Group on Tanks met in a hybrid format from 19 to 21 September 2023 on the basis of the mandate from the RID/ADR/ADN Joint Meeting, under the chairmanship of Mr. Arne Bale (United Kingdom), with Mr. Kees de Putter (Netherlands) as secretary. The relevant documents were submitted to the Working Group for consideration.

2. For the Working Group on Tanks, 28 experts from 10 countries and 7 non-governmental organizations participated. They dealt with the following official and informal documents:

*Documents:*

- ECE/TRANS/WP.15/AC.1/168 (report)
- ECE/TRANS/WP.15/AC.1/2023/23 and 2023/23/Add.1 (secretariat)
- ECE/TRANS/WP.15/AC.1/2023/26 (UIC)
- ECE/TRANS/WP.15/AC.1/2023/28 (Netherlands)
- ECE/TRANS/WP.15/AC.1/2023/29 (Netherlands)
- ECE/TRANS/WP.15/AC.1/2023/30 (Netherlands)
- ECE/TRANS/WP.15/AC.1/2023/33 (EIGA)
- ECE/TRANS/WP.15/AC.1/2023/35 (Belgium)
- ECE/TRANS/WP.15/AC.1/2023/37 (Belgium)
- ECE/TRANS/WP.15/AC.1/2023/46 (France)
- ECE/TRANS/WP.15/AC.1/2023/52 (France)
- ECE/TRANS/WP.15/AC.1/2023/53 (France)
- ECE/TRANS/WP.15/AC.1/2023/54 (France)

*Informal documents:*

- INF.4 (Germany)
- INF.5 (UIP)
- INF.7 (Germany)
- INF.10 (Netherlands)
- INF.11 (Netherlands)
- INF.12 (ITCO)
- INF.19 (France)
- INF.20 (Poland)
- INF.21 (Poland)
- INF.23 (CEN)
- INF.24 (EIGA)
- INF.27 (Germany)
- INF.28 (France)
- INF.29 (France)

## Section 1: Amendments that may be approved for inclusion in RID/ADR 2025

### Item 1: Report of the spring session of the Joint Meeting

Document: ECE/TRANS/WP.15/AC.1/168

3. The proposal concerning amendment of 6.8.2.2.11 on sight glasses in Annex 2 to the report was revisited and approved without modification. The square brackets on the amended 6.8.2.2.11 and the associated transitional measures under chapter 1.6 of Annex 2 were deleted.

### Item 2: Working group on harmonisation

Document: ECE/TRANS/ WP.15/AC.1/2023/23

Document: ECE/TRANS/ WP.15/AC.1/2023/23/Add.1

4. For the following UN No's tank codes and special tank provisions in the table A of Chapter 3.2 were confirmed:

#### Proposal 1

For UN 1391 and UN 3482 delete the text in square brackets (tank code L10BN(+) should be retained).

For UN 1835 PG II delete the text in square brackets (tank code L4BN should be retained).

For UN 3423 delete the square brackets and enter the new tank code S10AH/L10CH instead of SGAN/L4BN and the new special tank provisions TU14,TU15, TE19 and TE21 for ADR and TU14, TU15, TU38, TE21 and TE22 for RID.

For UN 3553 delete the square brackets and enter the new tank code PxBN(M) and special tank provision TA4, TT9 for ADR and TU38, TE22, TA4, TT9 and TM6 for RID.

For UN 3560 delete the square brackets and enter the new tank code L10CH and special tank provisions TU14, TU15, TE19 and TE21 for ADR and TU14, TU15, TU38,TE 21 and TE22 for RID.

#### Proposal 2

The proposed transitional measures 1.6.3.62, 1.6.3.63, 1.6.4.66 and 1.6.4.67 were not supported and the proposed wording in square brackets is to be deleted. It was considered that transitional measures 1.6.1.55 and 1.6.1.56 were sufficient.

#### Proposal 3

Concerning the possibility of having two different tank codes for Class 8 CTI PG II, it was recognized that there are two different codes also for Class 8 CTI PGI and PGIII.

It is suggested that in the table of 4.3.4.1.2 this can be solved by entering the following explanations in a box at the bottom of the part of the table dealing with these tank codes.

L4BN	8 <sup>a</sup> (for RID)	CT1 <sup>a</sup> (for ADR)	II, III
<sup>a</sup> Substances except hydrofluoric acid and hydrogen difluoride solutions shall be assigned to this tank code.			
L4DH	8 <sup>b</sup> (for RID)	CT1 <sup>b</sup> (for ADR)	II, III
<sup>b</sup> Hydrofluoric acid and hydrogen difluoride solutions shall be assigned to this tank code.			
L10BH	8 <sup>c</sup> (for RID)	CT1 <sup>c</sup> (for ADR)	I
<sup>c</sup> Substances except those containing hydrofluoric acid shall be assigned to this tank code.			
L10DH	8 <sup>c</sup> (for RID)	CT1 <sup>c</sup> (for ADR)	I
<sup>c</sup> Substances containing hydrofluoric acid shall be assigned to this tank code.			

As a consequence for RID footnotes “a” and “b” become “d” and “f” respectively, and for ADR the asterisk become “d” and “f”.

**Item 3: Clarification of the provisions on the holding time for the carriage of tanks with refrigerated liquefied gases.**

*Document:* ECE/TRANS/WP.15/AC.1/2023/26 (UIC)

5. There was general support for the principle. It was agreed that the consignor is responsible for offering the empty uncleaned tank wagons and tank-containers in a condition that the pressure relief devices are not activated during carriage.

6. It was discussed that wording along the same lines as reproduced below could be used to amend chapter 4.2.

7. The following proposal was adopted after a modification of the proposed wording and it was agreed that wording along these lines could be used for portable tanks:

**Proposal 4**

Amend 4.3.3.5 by adding a new sentence at the end to read:

*“The requirements of 4.3.3.5 need not be complied with for empty, uncleaned tanks/tank-containers.”*

**Proposal 5**

Amend 4.3.3.6 to read (new wording underlined):

4.3.3.6 Tanks/Tank-containers shall not be offered for carriage:

- (a) In an ullage condition liable to produce an unacceptable hydraulic force due to surge within the shell;
- (b) When leaking;
- (c) When damaged to such an extent that the integrity of the tank-container or its lifting or securing arrangements may be affected;
- (d) Unless the service equipment has been examined and found to be in good working order;

*and for refrigerated liquefied gases:*

- (e) Unless the actual holding time for the ~~refrigerated-liquefied~~ gas being carried has been determined;
- (f) Unless the duration of carriage, after taking into consideration any delays which might be encountered, does not exceed the actual holding time;
- (g) Unless the pressure is steady and has been lowered to a level such that the actual holding time may be achieved<sup>4</sup>.
- (h) *When empty, uncleaned, unless the pressure has been reduced to a level that ensures that the pressure relief devices will not activate during carriage*<sup>4</sup>.

**Item 4: Exemption of accreditation in case of competent authorities performing inspection tasks**

*Document:* ECE/TRANS/WP.15/AC.1/2023/28 (Netherlands)

8. Concerning the conflict between 1.8.6.2.1 and 1.8.6.3.1 for competent authorities that perform inspection tasks, two more cases were tabled where the last sentence of 1.8.6.3.1 causes problems. This concerns inspection bodies starting activities but not yet accredited (1.8.6.2.2.3) and sub-contracting by inspection bodies to bodies that were not accredited (1.8.6.3.3.1).

9. After discussion it was decided not to delete the last sentence of 1.8.6.3.1, but to amend it so as to indicate that the items listed in 1.8.6.3.1 are deemed to be met if there is compliance with the standard. However concern was expressed that the exception of accreditation of the competent authorities may lead to unwished situations in particular if it delegates tasks to other bodies in line with the definition of competent

<sup>4</sup> Guidance is provided in the European Industrial Gases Association (EIGA) document “Methods to prevent the premature activation of relief devices on tanks” available at [www.eiga.eu](http://www.eiga.eu).

authority in 1.2.1. Most experts were of the opinion that a technical service within the competent authority should be accredited if they perform inspection tasks.

10. It was argued that in 1.8.6.1 issue of type approvals was not included in the list of activities and that competent authorities need not be accredited for this task. However, in 6.2.2.12 and 6.2.3.6.1 for “XA” it may be interpreted that the competent authorities issuing type-approvals are required to be accredited.

11. TA4 and TT9 were mentioned in that accreditation is mandatory, although these special tank provisions may be seen as further specification for tanks intended for the carriage of gases (and some other products). It was concluded that the exemption of the competent authority in 1.8.6.2.1 needed further consideration. A suggestion was made to strengthen 1.8.6.3.1 by including a requirement that the competent authority performing inspection tasks itself shall be evaluated and documented for compliance with the items given in 1.8.6.3.1. For this reason it was agreed to keep the amendments in square brackets to allow for further clarification in the next session of the Joint Meeting.

### Proposal 6

Amend the last sentence of 1.8.6.2.1 to read (new wording in *Italic underlined*):

[“*When the competent authority does not approve, recognize or designate inspection bodies, but performs these tasks itself, the competent authority shall comply with the provisions of 1.8.6.3.” ]*

Amend the last sentence of 1.8.6.3.1 to read:

“*The requirements above are deemed to be met in the case of accreditation according to the standard EN ISO/IEC 17020:2012 (except clause 8.1.3).”*

### Item 5: Clarification of application of 6.8.2.2 to 6.8.3.2

Document: ECE/TRANS/WP.15/AC.1/2023/29 (Netherlands)

12. Although there was support for proposal 1 concerning the inclusion of a note to clarify the relation between 6.8.2 and 6.8.3 there was also the feeling that the adoption of a note would set a precedent for the inclusion of more notes to help the understanding of the regulations. Because it was not a technical issue but more of principle it was decided to leave it to the plenary to decide.

In 6.8.3 introduce a note after the heading to read (new text underlined): “**NOTE: The special requirements of section 6.8.3 supplement or modify the requirements of section 6.8.2.**”

13. Concerning proposal 2, for amending the clauses EN 12252 applies to in column 3 of the table in 6.8.2.6.1, reference was made to INF 23 item 6. Pending the decision by plenary to delete column 3 completely the decision was to keep the amendment in square brackets.

### Proposal 7

In ADR 6.8.2.6.1 amend in column 3 of the table the references to (new text is bold and underlined):

- [ - EN 12252:2005+A12008) to read “**6.8.2.2**, 6.8.3.2 (with the exception of 6.8.3.2.3) and 6.8.3.4.9”
- EN 12252:2014 to read “**6.8.2.2**, 6.8.3.2 and 6.8.3.4.9”]

### Item 6: Obligations of in-house inspection services

Document: ECE/TRANS/WP.15/AC.1/2023/30 (Netherlands)

14. Although the logic behind the proposal could be seen, most experts were not in favour of the proposed amendment to place obligations of the in-house inspection service in 1.8.6. The reason for this is that competent authorities do not approve in-house inspection services. To help clarify the situation it was agreed to amend 1.8.6.1 and the title of 1.8.7.7.

**Proposal 8**

In 1.8.6.1 add “authorization and” before “surveillance”.

Amend the title of 1.8.7.7 to read:

***“Authorization and surveillance of the in-house inspection service”***

15. In discussion on this topic an incorrect reference was spotted in 1.8.8.6 where the reference to 1.8.7.7.1(d) no longer existed.

**Proposal 9**

In 1.8.8.6 replace “1.8.7.7.1 (d)” by “1.8.7.7.1 (b) (ii)”.

**Item 7: Marking of the maximal allowed working pressure**

*Document:* ECE/TRANS/WP.15/AC.1/2023/35 (Belgium)

*Informal document:* INF 5 (UIP)

16. It was agreed that chapter 6.8 is consistent in reading and that tanks for compressed, liquefied or dissolved gases did not require marking of a maximum working pressure on the tank plate. Instead of adding the note as proposed in INF 5 it was concluded that an amendment of the last sentence of 6.8.2.5.1 would be preferred. It was remarked that chapters 4.3 and 6.8 use the term maximum working pressure. In this discussion it was discovered that in 4.3.3.2.4 maximum allowable working pressure was incorrectly used, adding to the confusion.

**Proposal 10**

Amend the last sentence of 6.8.2.5.1 to read (new wording underlined)

*“In addition, the maximum working pressure allowed shall be inscribed on the pressure-filled or pressure discharged tanks (for Class 2 see 6.8.3.5.)”*

**Proposal 11**

Amend 4.3.3.2.4 to read (deleted wording underlined stricken through):

*The test pressure for tanks intended for the carriage of refrigerated liquefied gases shall be not less than 1.3 times the maximum ~~allowable~~ working pressure and indicated on the tank but not less than 300 kPa (3 bar) (gauge pressure); for tanks with vacuum insulation the test pressure shall be not less than 1.3 times the maximum ~~allowable~~ working pressure increased by 100 kPa (1 bar).*

**Item 8: 6.8.1.5.1 and 6.8.1.5.4 – Discrepancy between ADR and RID 2023.**

*Document:* ECE/TRANS/WP.15/AC.1/2023/37 (Belgium)

17. A discrepancy was found between RID and ADR. In ADR a note is applicable, that tank-containers need to be inspected by an inspection body approved or recognized by the country of registration, this note was not included in 6.8.1.5.1 of RID.

18. Although a majority of the experts were in favour of deleting the note for tank-containers in ADR (option 1), no consensus could be reached as other experts were in favour of introducing the note in RID for tank-containers.

19. Deleting the note for tank containers in ADR would solve issues with the country of registration and would reflect the existing situation to have the tank-container inspected where it was actually used.

20. As this was more a political issue than a technical one it was decided to leave the final decision to the plenary to decide between option 1 or option 2 (introducing the note in RID for tank-containers).

### **Item 9: Terminology used in 6.8.2.5.2 in RID/ADR for marking**

*Document: ECE/TRANS/WP.15/AC.1/2023/53 (France)*

21. The purpose of the document was to bring the English version of RID/ADR in line with the French, German and Russian language versions. For this the term “plate” used in 6.8.2.5.2 for particulars to be marked on the tank should be replaced by “panel”.

There were no objections on the proposed amendment.

### **Proposal 12**

In 6.8.2.5.2 and 6.8.3.5.6 (2 times) amend to read (deleted wording stricken through and new wording underlined):  
“(on the tank itself or on ~~plates~~ panels)”.

### **Item 10: Clarification of RID/ADR 4.3.4.2.1 on the temperature of the external tank surface**

*Document: ECE/TRANS/WP.15/AC.1/2023/54 (France)*

22. In 4.3.4.2.1 the surface temperature of tanks carrying substances at elevated temperatures is limited to 70 °C to prevent burns when the tank is touched by persons. However, openings and closures are in a position that they cannot be easily touched and cannot always be insulated to comply with this provision.

The proposal to exempt the openings and closures is already included in the requirements of 4.2.1.4. There were no objections to the proposed amendment of 4.3.4.2.1.

### **Proposal 13**

Amend 4.3.4.2.1 to read as follows (new text is underlined):

“*Where hot substances are loaded, the temperature of the outer surface of the ~~tank~~ shell, excluding openings and their closures, or of the thermal insulation shall not exceed 70 °C during carriage.*”

### **Item 11: References to EN 12972:2018 in 6.8.2.6.1 and in 6.8.2.6.2**

*Informal document: INF 18 France*

23. Since “Type examination, inspection and test” was now the title of 6.8.2.6.2 and “Design and construction” the title of 6.8.2.6.1 it was agreed that reference only in 6.8.2.6.2 was appropriate .

### **Proposal 14**

Delete the reference to EN 12972:2018 in the table of 6.8.2.6.1

### **Proposal 15**

Amend the column 3 in the table of 6.8.2.6.2 to include reference to “6.8.2.3”

### **Item 12: RID/ADR: Deletion of tank code L10CH for UN 3550 COBALT DIHYDROXIDE POWDER, containing not less than 10 % respirable particles**

*Informal document: INF 27 Germany*

24. The working group agreed with the deletion of the tank code L10CH for UN 3550 COBALT DIHYDROXIDE POWDER. In comparison with other UN numbers of 6.1 PG I (e.g. UN 1544, UN 1575, UN 1588, UN1680, UN 1692) it is proposed to amend the special tank provisions.

### **Proposal 16**

*Delete the tank code L10CH from column 12 of the table A in 3.2 for UN 3550*

*And :*

*ADR delete special tank provisions TU14 and TE21*

*RID delete special tank provisions TU14, TU38, TE21 and TE22*

*from column 13 of the table A in 3.2.*

## I. Section 2: Result of discussion on other documents

### **Item 13: RID/ADR 6.8.3.6 – Requirements for battery-wagons/ battery-vehicles and multiple-element gas containers which are designed, constructed, inspected and tested according to referenced standards**

*Document:* ECE/TRANS/WP.15/AC.1/2023/33 (EIGA)

*Document:* ECE/TRANS/WP.15/AC.1/2023/52 (France)

*Informal document:* INF 23 (CEN)

25. EN 23826 is referenced in 6.8.3.6 for battery vehicles, battery wagons and Multiple-element Gas Containers (MEGCs), but questions were raised as the standard is not yet referenced in EN 13807. It was decided to endorse the proposal by the working group on standards (see INF 23 item 5). As it is expected that EN 13807 will be revised soon after RID/ADR 2025 enters into force, EN 23826 may be applied based on 1.1.5.

### **Item 14: Elimination of dual approval of tanks under Chapters 6.7 and 6.8 of RID/ADR**

*Document:* ECE/TRANS/WP.15/AC.1/2023/46 (France)

*Informal documents:* INF 12 (ITCO), INF 24 (EIGA), INF 29 (France)

26. This document resulted from discussions during the spring session of the Joint Meeting. It pointed out that the dual approval of 6.7 portable tanks also as 6.8 tank containers had negative effects. It was also recognized that there were cases that the dual approval had positive effects for the use of these tanks as for example corrosive substances required top discharge for portable tanks while for the same substances tank-containers were allowed bottom discharge. As top discharge is more troublesome to perform INF 29 gave an inventory of concerned UN numbers and an alternative use of portable tanks to overcome this issue.

27. INF 12 by ITCO highlighted the safety record of tanks having dual approval and the consequences for industry when dual approval would no longer be allowed. INF 24 by EIGA, although in principle not against, raised some concerns of 6.7 portable tanks not being allowed in all states of RID/ADR. There was in principle support by the majority for not allowing dual approval of portable tanks. However, it was felt that we should have a clear understanding of the consequences before considering this route.

28. An important consequence noted in INF 24 was that in some countries, or terminals for loading, portable tanks would not be accepted if not also approved as tank-containers. It was agreed that this was certainly not the intention and that portable tanks (chapter 6.7) could be carried on all modes of transport and filled or emptied in all ADR and ADN contracting parties/RID contracting states without being also approved as tank-container (chapter 6.8).

29. ITCO offered to organize an intersessional meeting to identify all of the issues and consequences that may arise from such a complex change.

### **Item 15: Openable partitions**

*Informal document:* INF 4 (Germany)

30. The use of openable partitions is neither defined in the regulations nor in the standard. The working group considered that this construction was not acceptable. Because the tank is designed to carry only one type of fuel leakage between compartments presents no safety issues.

### **Item 16: Water chamber in vacuum operated waste tanks**

*Informal document:* INF 7 (Germany)

31. The working group confirmed that all three constructions showed in the document are permitted by the regulations.

### **Item 17: Suggestions inspired on the intersessional discussion on holding time**

*Informal document:* INF 10 (Netherlands)

32. The suggestions were discussed and well received, but it was agreed that more work was needed.

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**Item 18: Outcome of the intersessional discussion session on holding time of tanks for refrigerated liquid gases**

*Informal document:* INF 11(Netherlands)

33. The document reflected the discussions with stake holders on holding time. This was seen as a valuable contribution to improve the understanding of how to determine the actual holding time. It was recognized that there is a problem identifying who shall determine the actual holding time in practice and that further work is needed.

**Item 19: Inspection of tanks whose deadlines for intermediate inspections have expired**

*Informal document:* INF 19 (France)

34. It was confirmed by the experts from previous discussions that it was sufficient to carry out an intermediate inspection if the due date for the intermediate inspection has been missed. UIP offered to present a document to clarify the situation at the next session.

**Item 20: 6.8.2.5.1 RID/ADR - date and type of the most recent inspection: "month, year" on the tank plate.**

*Informal document:* INF 20 (Poland)

35. In 6.8.2.5.1 it is not specified how many digits the month and year of the performance of inspections is to be marked.

The experts that took the floor indicated that marking the year with two digits was sufficient and not leading to any confusion. In many cases the tank-plate had limited space and marking requires considerable effort.

36. It was decided not to regulate this, and continue allowing two or four digits to indicate the year.

**Item 21: Request for opinion on clause 5.8.3 of EN 12972 regarding tank leakproofness test pressure**

*Informal document :* INF 21 (Poland)

37. The question was raised if the test pressure for shut-off devices of tanks in clause 5.8.3 of EN 12972:2018 is correct. It was explained that the whole of 5.8.3 is to be taken into account and that the pressure in question in INF 21 is the pressure belonging to an additional test in case shut-off devices are tested separately from the tank.

38. was suggested that the standard could be improved by numbering the various sections of 5.8.3. However, no amendment of the regulation is required.

**Item 22: Maximum working pressure of a tank having a tank-code L4BH**

*Informal document :* INF 28 (France)

39. It was confirmed that tank-vehicles were allowed having a tank code L4BH and a working pressure lower than 3 bar. In that case a restriction of allowed substances should be taken into account. Due to the late document further discussions are needed.

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