

## 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

19 September 2019

### Report of the Working Group on Tanks

1. The Working Group on Tanks met from 17 to 19 September 2019 in Geneva based on the mandate from the RID/ADR/ADN Joint Meeting, under the chairmanship of Mr. Arne Bale (United Kingdom) Mr. Kees de Putter (Netherlands) as secretary. The relevant documents were submitted to the plenary session and transferred to the Working Group for consideration.

2. The Working Group on Tanks, consisting of 32 experts from 12 countries and 5 non-governmental organizations and the European Commission, dealt with the following official and informal documents:

*Documents:*

- ECE/TRANS/WP.15/AC.1/2019/24 (United Kingdom)
- ECE/TRANS/WP.15/AC.1/2019/25 (United Kingdom)
- ECE/TRANS/WP.15/AC.1/2019/26 (United Kingdom)
- ECE/TRANS/WP.15/AC.1/2019/39 (United Kingdom)
- ECE/TRANS/WP.15/AC.1/2019/40 (United Kingdom)
- ECE/TRANS/WP.15/AC.1/2019/49 (Netherlands)

*Informal documents:*

INF. 4 (OTIF)	INF. 19 (United Kingdom)
INF. 15 (secretariat)	INF. 33 (Switzerland)
INF. 17 (United Kingdom)	INF. 38 (France)
INF. 18 (United Kingdom)	INF. 39 (France)

*Due to time constraints the following documents could not be dealt with:*

INF. 21 (Poland)	INF. 29 (France)
INF. 27 (France)	INF. 37 (Poland)

#### **Item 1: ECE/TRANS/WP.15/AC.1/2019/24 (United Kingdom) – Tanks: Clarification of protection required for the fittings and accessories mounted on the upper part of Vacuum operated waste tanks and INF 33 (Switzerland).**

3. In document 2019/24 additional wording was proposed to clarify that 6.8.2.1.28 applied to vacuum operated waste tanks with additional provisions based upon suggestions from the Tanks Working Group at previous sessions. INF 33 contains alternative proposals to the effect that 6.8.2.1.28 need not to be complied with for vacuum operated waste tanks.

4. The opinion of the experts on the need for this protection was divided, where several experts are of the opinion that 6.8.2.1.28 was never intended to apply when equipment is placed in a so called “protected area”, while others were of the opinion that additional protection of 6.8.2.1.28 needs to be applied.

5. 6.10 completes or modifies 6.8 for vacuum operated waste tanks. However 6.8.2.1.28 is not modified or completed and as such it can be seen to apply. However it was noted by the group that there was flexibility within 6.8.2.1.28 for alternative approaches to be taken in order to protect fittings and accessories that may be fitted at the top of the tank. It was also said that the application of 6.8.2.1.28 for vacuum operated waste tanks could be discussed again on the basis of any evidence produced.

**Item 2: ECE/TRANS/WP.15/AC.1/2019/25 (United Kingdom) – Tanks: Interpretation of construction requirements applicable to the opening ends of Vacuum Operated Waste Tanks (VOWTs) and INF.18 (United Kingdom) and INF 18 (United Kingdom).**

6. The UK sought the opinion of the experts of the tanks Working Group on different clamping arrangements for openable ends, in particular the need to protect over the centre type hydraulic clamps.

7. Several experts explained that the “over centred clamp construction” is used in their countries without incidents and without additional protection. However it was noted that the design of these clamps is more robust than the example shown in the document. The UK thanked the experts for their views.

**Item 3: ECE/TRANS/WP.15/AC.1/2019/26 (United Kingdom) – Tanks: Vacuum Operated Waste Tanks (VOWTs) – diverting vapours from the outlets of pump/exhauster units to a place where they will not cause danger.**

8. Toxic or flammable vapours expelled by the vacuum pump or exhauster unit shall be diverted to a safe place. It is proposed to add wording to 6.10.3.8 to clarify that where a low-level outlet is used a hose should be applied to divert the vapours to a safe place.

9. It was felt that the current wording of 6.10.3.8 did not prohibited the use of a low-level outlet, with a hose or not. The operator of the tank should decide on the location where it is safe to divert the vapours. It was also felt that the proposed wording would be too restrictive and give the impression that only a low-level exit could be used. As the current wording is not design restrictive and allows for different solutions, the proposed wording was felt to be unnecessary but it was decided that a note would be helpful in the application of 6.10.3.8 (a).

**Proposal 1; introduce a new Note to 6.10.3.8 (a) to read:**

*“Note: this requirement may for example be complied with by the use of a vertical pipe or a low-level outlet with a connection which allows, when necessary, attachment of a hose. “*

**“Item 4: ECE/TRANS/WP.15/AC.1/2019/39 (United Kingdom) – Cross sectional shape of shells in accordance with ADR 6.8.2.1.18 – Guideline for the application of the proposed addition to footnote 3 of ADR 6.8.2.1.18.**

10. The amendment to foot note 3 of 6.8.2.1.18 has been accepted but kept in square brackets awaiting the inclusion of design requirements in the revised standard EN 13094. As the revision of EN 13094 is not likely to be published in time for RID/ADR 2021 it was decided by WP.15 to introduce a Guideline containing the relevant clauses from the standard.

11. Whilst it was confirmed that the revision of EN 13094 is not yet finalized, the relevant clauses have been agreed, and the changes that were made need to be reflected in a revised version of document 2019/39. During the session of the Tanks Working Group the modifications were carried over in a revised version of the Guideline that will be available to the Plenary. When endorsed by the Plenary the secretariat is requested to forward the document to the Working Party on the Transport of Dangerous Goods for consideration at its November 2019 meeting.

**Item 6: ECE/TRANS/WP.15/AC.1/2019/40 (United Kingdom) – Report of the eleventh session of the informal working group on the inspection and certification of tanks and INF 16 (Germany), INF 17 (United Kingdom) and INF 19 (United Kingdom).**

13. The chair of the informal working group introduced the reports of the 11<sup>th</sup> and 12<sup>th</sup> session of the informal working group in documents 2019/40 and INF 17, that met in London and Madrid respectively, and INF 19 that contained the complete revised wording of 6.8, 1.8.7 and 1.8.6. In addition, the proposals for consequential amendment of chapter 6.2 were introduced in INF 16.

The discussion included the following key items:

- Entry into service verification: A note was added to accommodate, for example, TPED by indicating that mutual recognition agreements should be taken into consideration when deciding on the application of the entry into service verification.
- The use of a single inspection body. It was decided that the placing of a provision that a single inspection body should be used for inspection, to prevent so called “tank tourism”, would be more appropriately referenced in 6.2 and 6.8 than 1.8.7.
- The effect on mutual recognition was discussed and 1.8.6.2.5.3 was modified to clarify the intention of the proposal.
- It was also recognized that transitional measures for the introduction of the new arrangements should be developed.

14. The text that remained in square brackets were discussed and the remarks made by experts were considered. From this INF16 Rev1 and INF19 Rev1 were developed and will be made available to the Plenary for consideration.

15. In order to complete the wording and forward an official document for the March 2020 session of the Joint Meeting all delegations are urged to study the proposals, and send written comments and proposals in English by E-mail before the end of October 2019 to the chair of the informal working group for consideration by the group.

**Item 7: ECE/TRANS/WP.15/AC.1/2019/49 (Netherlands) – Heating elements on Fibre-Reinforced Plastic (FRP) tanks.**

16. It was proposed in the document to move the requirement on heating elements from 6.9 to 4.4 to prevent misinterpretation. The effect of the interpretation made at the previous session of the Tanks Working Group is that in some countries FRP tanks with heating elements are not being granted periodic or intermediate inspection certificates.

17. Most experts had sympathy for the situation but would prefer to await the outcome of the work currently being undertaken at the United Nations Sub-Committee of the Experts on the Transport of Dangerous Goods (SCETDG). It was felt that additional requirements would be needed to protect the tank against possible negative effects from high temperatures and pressure.

18. As FRP tanks are currently being addressed by the SCETDG the proposed amendments were considered to be premature. As an interim measure it was suggested that operators should render the heating elements inoperable until the work of the FRP Working Group of the SCETDG has been completed.

**Item 8: INF.4 (OTIF) – Alignment of the different language versions.**

19. The Tanks Working Group checked the proposals by the secretariat of OTIF to align the wording used in the different language versions. It was agreed that the amendments for the definition of tank-wagon in 1.2.1 (English versions) and the proposed wording for 6.8.2.1.11 (English versions) were correct.

20. Concerning the amendment of 6.8.2.2.2 for the cleaning openings in the lower part of the shell, the group considered the proposal inappropriate. It was noted however that an amendment to the current text of the German version was needed to align with the text of the English and French version.

**Proposal 2:**

In the definition of “Tank-wagon” in 1.2.1 of only the English version of RID, replace “shells” by:

“tanks”.

**Proposal 3:**

Replace “welded tanks” in 6.8.2.1.11 of the English version (RID and ADR) by:

“welded shells”

**Proposal 4:**

In the last paragraph of 6.8.2.2.2, 3<sup>rd</sup> sentence of German version of RID to read (new wording in italic script);

“..sind jedoch Reinigungsöffnungen (Handlöcher) *im unteren Teil* des Tanks zugelassen.”

**Item 9: INF.15 (Secretariat) – Changes of the loaded products in tank-vehicles**

21 The secretariat notes that the Working Group on Tanks is requested by the Working Party on the Transport of Dangerous Goods (WP.15) to consider the documents ECE/TRANS/WP.15/2019/9 and INF 18 (106<sup>th</sup> session).

22. Document 2019/9 describes the case where a tank-vehicle intended for hydrocarbons carries orange plate markings belonging to a previous load with different properties than the current load. The tank is not cleaned before the change of load, and residue of the previous load remains in one of the three compartments and in sections of the discharge system. The questions arising from a change of load without cleaning the tank are whether this should be allowed and whether it would be useful to regulate the presence of vapour in the ullage space above the new load and in the discharge systems in the regulation.

23. It is confirmed that on road fuel tankers changes in load in compartments occurs. It is also said that compartments of these tanks drain very well and that only a small amount of fuel remains in the tank. It is also confirmed that depending on the design of the discharge system other hydrocarbons remain, especially in metering devices. Cleaning is in general avoided due to the residue of water after cleaning.

24. It was noted that only a small amount of petrol in Biodiesel may change the flash point so that it may become a flammable substance.

25. The presence of orange plates from the previous load, in this case for petrol (1203/33) while Biodiesel (Fame) is carried, is found to be correct according to 5.3.2.1.7 because of the empty uncleaned compartment that had contained petrol before. Whether this empty uncleaned requirement would also apply to residue in the discharge system could not be answered. On the other hand in the case of additive devices in special provision 664 (g) the marking and placarding is not affected by the additive.

26. It was recognized that more discussion was needed and that clarification might be helpful, but care should be taken not to overcomplicate the regulation.

**Item 10: INF.38 (France) –Modification of the terminology used in 6.8.2.1.20.**

27. The working group considered the document and accepted the proposed amendment.

**Proposal 5**

In 6.8.2.1.20(b) 1 of ADR delete “contained” and replace “volume” by “capacity” to read (deleted wording stricken through, new wording in Italic script);

“/ ~~Volume~~ *Capacity* ~~contained~~ between two partitions or surge plates of not more than 7500 L.”

**Item 11: INF.39 (France) – Amendment to Chapter 1.6 – transitional measures on tanks.**

28. It was proposed to delete transitional measures 1.6.3.16 and 1.6.4.18 concerning the tank record. However it was felt that for tanks entering into service before 2007, that may not have the type approval certificate in the tank record, deletion of the transitional measure may result in a non-compliance with 6.8.3.1. It was suggested that the transitional measure should be modified to take this into account.

29. It was noted that in RID transitional measure 1.6.3.3.2 and 1.6.3.27 last paragraph should be deleted for RID 2021.

30. Given time constraints the group was of the opinion that these transitional measures required further consideration and it would be helpful to prepare a new document for the March 2020 session of the Tank Working Group.

---