



**Committee of Experts on the Transport of Dangerous Goods
and on the Globally Harmonized System of Classification
and Labelling of Chemicals****Sub-Committee of Experts on the Transport
of Dangerous Goods****Fifty-fourth session**

Geneva, 26 November-4 December 2018

Item 2 (f) of the provisional agenda

**Recommendations made by the Sub-Committee on its fifty-first,
fifty-second and fifty-third sessions and pending issues:
miscellaneous pending issues****Chapter 6.7 and portable tank special provisions****Transmitted by the expert from Belgium*****Introduction**

1. During the fifty-second and fifty-third sessions of the Sub-Committee, Belgium respectively brought forward informal document INF.25 (fifty-second session) and ST/SG/AC.10/C.3/2018/41. It was explained that in paragraph 6.7.3.4.1 on the minimal shell thickness of portable tanks intended for the transport of non-refrigerated liquefied gases, no reference was made to the portable tank special provisions in 4.2.5.3. Some of these portable tank special provisions (i.e. TP19 and TP21) are however applicable to the minimal shell thickness of portable tanks intended for the transport of non-refrigerated liquefied gases. Furthermore a similar reference exists in 6.7.2.4.1 that applies to the minimal shell thickness of portable tanks that are intended for the transport of substances of Class 1 and classes 3 to 9.

2. During the fifty-third session, it was agreed that the current text should be clarified and several comments were received. Nevertheless no consensus could be reached after which Belgium decided to withdraw document ST/SG/AC.10/C.3/2018/41 and come up with a new proposal for the next session taking into account the comments made (ST/SG/AC.10/C.3/106 para. 130).

* In accordance with the programme of work of the Sub-Committee for 2017-2018 approved by the Committee at its eighth session (see ST/SG/AC.10/C.3/100, paragraph 98 and ST/SG/AC.10/44, paragraph 14)

3. During the fifty-second and fifty-third session of the Sub-Committee, Belgium also respectively brought forward informal document INF.26 (fifty-second session) and ST/SG/AC.10/C.3/2018/43 in which several options were proposed for clarification of TP19. Option 1 of this proposal, with some minor amendments, was unanimously chosen at the fifty-third session. Given the ongoing discussion about the reference to be made in 6.7.3.4.1 and the comments received, we feel that the text accepted for TP19 can still be improved to provide additional clarity.

4. When preparing this document, we also found out that there are a number of corrections that should be made to the other instances in Chapter 6.7 where reference is made to the portable tank special provisions, which we also included in this document.

Proposals

Proposal 1

5. Amend the text of TP19 adopted at the fifty-third session of the Sub-Committee and reproduced in the consolidated list of amendments prepared by the secretariat (ST/SG/AC.10/C.3/2018/65) to read (new text underlined, ~~deleted text stricken through~~):

“**TP19** At the time of construction, the ~~calculated~~ minimum shell thickness determined according to 6.7.3.4 shall be increased by 3 mm as a corrosion allowance. Shell thickness shall be verified ultrasonically at intervals midway between periodic hydraulic tests and shall never be lower than the ~~calculated~~ minimum shell thickness determined according to 6.7.3.4.”

Justification

6. Amending the text as proposed clarifies to the user that an additional 3 mm should be added as a corrosion allowance to the minimum shell thickness determined according to 6.7.3.4. Given the mention in paragraph 6.7.3.4.5 where corrosion allowance is specifically excluded from being part of the minimal shell thickness, it should be clear that the additional 3 mm required according to TP19, shall be never considered as part of the minimal shell thickness.

Proposal 2

7. Amend the text of paragraph 6.7.3.4.1 of the Model Regulations to read as follows (new text underlined):

“The minimum shell thickness shall be the greater thickness based on:

- (a) The minimum thickness determined in accordance with the requirements mentioned in 6.7.3.4.; and
- (b) The minimum thickness determined in accordance with the recognized pressure vessel code including the requirements in 6.7.3.3

In addition, any relevant portable tank special provision indicated in Column (11) of the Dangerous Goods List and described in 4.2.5.3 shall be taken into account.”

Justification

8. Since the portable tank instruction T50 that applies for the transport of non-refrigerated liquified gasses, in contrast to portable tank instructions T1 to T23, does not contain requirements for the minimum shell thickness, and given the content of TP19, it is not possible to refer to the portable tank special provisions as is done in 6.7.2.4.1. Therefore,

we proposed in document ST/SG/AC.10/C.3/2018/41 an alternative way of referring to the portable tank special provisions in 4.2.5.3, which was not adopted during the fifty-third session. The text as is proposed now takes account of the comment received at previous sessions that the text previously proposed creates a reciprocal connection between TP19 and 6.7.3.4.1.

Proposal 3

9. Amend the text of 6.7.4.4.1 of the Model Regulations to read as follows (new text underlined):

“The minimum shell thickness shall be the greater thickness based on:

- (a) The minimum thickness determined in accordance with the requirements in 6.7.4.4.2 to 6.7.4.4.7; and
- (b) The minimum thickness determined in accordance with the recognized pressure vessel code including the requirements in 6.7.4.3.

In addition, any relevant portable tank special provision indicated in Column (11) of the Dangerous Goods List and described in 4.2.5.3 shall be taken into account.”.

Justification

10. In accordance with what is currently written in paragraph 6.7.2.4.1 and is proposed in proposal 2 for paragraph 6.7.3.4.1, the proposed text refers the users to the portable tank special provisions in 4.2.5.3 where the portable tank special provisions that are applicable to the shell thickness could be described. Since the applicable portable tank instruction T75, also does not contain requirements on the minimal shell thickness, we propose to make this reference as is done in 6.7.3.4.1.

Proposal 4

11. Amend the text of paragraph 6.7.2.2.16 of the Model Regulations as follows: (~~deleted text stricken through~~, new text underlined):

“When required for certain substances by the applicable portable tank instruction indicated in Column 10 of the Dangerous Goods List and described in 4.2.5.2.6, or by a portable tank special provision indicated in Column 11 of the Dangerous Goods List and described in 4.2.5.3 ~~of the Dangerous Goods List~~, portable tanks shall be provided with additional protection, which may take the form of additional shell thickness or a higher test pressure, the additional shell thickness or higher test pressure being determined in the light of the inherent risks associated with the transport of the substances concerned.”.

Justification

12. Portable tanks special provisions are indicated in Column 11 of the Dangerous Goods List and described in 4.2.5.3, not indicated in Column 11 and described in 4.2.5.3 of the Dangerous Good List.