



**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-third session**

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Item 6 (c) of the provisional agenda

Miscellaneous proposals for amendments to the**Model Regulations on the Transport of Dangerous Goods:
portable tanks****Clarification on TP19****Transmitted by the expert from Belgium*****Introduction**

1. During the fifty-second session of the Sub-Committee, Belgium introduced informal document INF.26 explaining that there was a discussion going on in Belgium on how to interpret TP19. After discussing the document, the Sub-Committee felt there was a need for clarification and Belgium was asked to return with a working document on this subject (ST/SG/AC.10/C.3/104 paragraph 79).

2. TP19 currently applies only to UN1017 CHLORINE and UN1079 SULPHUR OXIDE, two substances that are known to have a corrosion speed of up to 0,1mm/year on steel, depending on the concentration of the substances and the specifications of the material used. TP19 currently reads as follows:

TP19 The calculated shell thickness shall be increased by 3 mm. Shell thickness shall be verified ultrasonically at intervals midway between periodic hydraulic tests.

3. Two ways to interpret this special provision have come forward. In both interpretations it was clear that upon building this tank, an additional 3 mm of steel should be added to the calculated minimum shell thickness according to 6.7.3.4.1. The main discussion point is however what the purpose of this additional 3 mm is and whether or not this additional 3 mm should be present during the whole lifetime of the tank.

4. A first way to interpret TP19, is by considering this additional 3 mm as a measure to provide additional safety during the transport of these substances. Consequentially this would mean that the additional 3 mm should be present during the whole lifetime of the tank. Given the corrosivity of these substances this would however mean that additional measures should

* 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, para. 14).

be taken to prevent the corrosion of the inner layers of the tank shell and as such fall below the total minimum shell thickness. i.e. calculated minimum shell thickness and additional 3 mm.

5. A second way to interpret this, is by envisioning the additional 3 mm as corrosion allowance to prevent the shell thickness to fall below the required minimum shell thickness calculated according to chapter 6.7.3.4.1. As such no additional measures should be taken and given the maximum corrosion rate of 0,1 mm/year, the shell thickness should not fall below the calculated minimum shell thickness during the first 30 years of its use.

Proposal

6. Replace the text currently in TP19 with the following:

Option 1

(In case this 3 mm should be present during the whole lifetime of the tank):

“**TP19** At the time of construction, the calculated shell thickness must be increased by 3 mm. Shell thickness must be verified ultrasonically at intervals midway between periodic hydraulic tests. The additional 3 mm must always be present.”

Option 2

(in case this 3 mm should be considered as corrosion-allowance):

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