



**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****Proposal for a new Chapter 6.10: Provisions for the design,
construction, inspection and testing of portable tanks with shells made
combined materials intended for transportation of class 2 substances
(non-refrigerated liquefied gases)****Transmitted by the expert from the Russian Federation*****Introduction**

1. During the fifty-second session of Sub-Committee the Russian Federation submitted a document (ST/SG/AC.10/C.3/2017/40) with a proposal for a new Chapter 6.9 “*Provisions for the design, construction, inspection and testing of portable tanks with shells made of Fibre Reinforced Plastics (FRP) materials intended for the transport of substances of classes 3, 5.1, 6.1, 6.2, 8 and 9*”.
2. The proposal was widely supported by the Sub-Committee. Some delegations pointed out that FRP materials could be used not only for the mentioned classes 3, 5.1, 6.1, 6.2, 8 and 9, but also for others, e.g. Class 2.
3. Keeping in mind that the activities addressed by the Sub-Committee are to cover all aspects of using materials irrespectively to substances transported, regions or means of transport the Russian Federation has requested SKOLKOVO scientific center (Moscow, Russian Federation) to provide further clarifications.

* 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).

Clarification

4. The requirements for UN portable tanks suitable for transport of class 2 non-refrigerated liquefied gases (T50) shall include requirements to prevent gas permeability of the composite shell under high inner pressure.
5. The existing single FRP materials fail to comply within. Nowadays, in order to prevent gas permeability metal liners are used (combined materials).
6. However, the metal liners do not have resistance to the impacts of chemically aggressive goods of classes 3, 5.1, 6.1, 6.2, 8 and 9 (T1 – T23). Therefore, another set of requirements is to be developed for these shells (e.g. Chapter 6.10).

Proposal

7. Bearing in mind the above, the Russian Federation invites the Sub-Committee to consider the following:
 - (a) Keep Chapter 6.9 “*Provisions for the design, construction, inspection and testing of portable tanks with shells made of Fibre Reinforced Plastics (FRP) materials intended for the transport of substances of classes 3, 5.1, 6.1, 6.2, 8 and 9*” as proposed by the Russian Federation in document ST/SG/AC.10/2017/40;
 - (b) Invite the Fibre Reinforced Plastics Informal Working Group to start developing a new Chapter 6.10 on “*Provisions for the design, construction, inspection and testing of portable tanks with shells made combined materials intended for transportation of class 2 substances (non-refrigerated liquefied gases)*” after completion of work on Chapter 6.9;
 - (c) Invite all experts to contribute to the development of new regulations related to innovative materials, keeping in mind that industry and operators are waiting for new safe, environmental friendly and cost-effective portable tanks.
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