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Item 2 of the provisional agenda

Tanks

Interpretation of RID/ADR 6.8.2.2.11 on level-gauges

Transmitted by the Government of the United Kingdom^{*}, ^{**}, ^{***}

Summary

Executive summary:	The United Kingdom would welcome an exchange of views on the requirements of RID/ADR 6.8.2.2.11 and consideration as to whether an amendment might be appropriate. Note: this document reproduces informal document INF.23 submitted to the September 2021 session, but it could not be dealt with due to time constraints.
Action to be taken:	An exchange of views on the interpretation of RID/ADR 6.8.2.2.11.
Related documents:	ECE/TRANS/WP.15/AC.1/2016/26 ECE/TRANS/WP.15/AC.1/144/Add.1

1. Following discussions in the Working Group on Tanks in September 2016 on the clarification of RID/ADR Chapter 6.8 with respect to level gauges, the following amendments were included in RID/ADR 2019:

Deletion of the first sentence to 6.8.3.2.6:

“If the tanks are equipped with gauges in direct contact with the substance carried, the gauges shall not be made of a transparent material. If there are thermometers, they shall not project directly into the gas or liquid through the shell.”

^{*} A/76/6 (Sect.20), para. 20.76.

^{**} Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2022/3.

^{***} This document was scheduled for publication after the standard publication date owing to circumstances beyond the submitter's control.

Insertion of a new paragraph (6.8.2.2.11):

“Glass level-gauges and level-gauges made of other fragile material, which are in direct communication with the contents of the shell, shall not be used.”

And inclusion of the following transitional provision (1.6.3.52).

“Fixed tanks (tank-vehicles) and demountable tanks constructed before 1 July 2019 in accordance with the requirements in force up to 31 December 2018 but which however do not conform to the requirements of 6.8.2.2.11 applicable from 1 January 2019 may continue to be used.”

2. Subsequent to ECE/TRANS/WP.15/AC.1/2016/26, the report of the Working Group on Tanks of September 2016 (ECE/TRANS/WP.15/AC.1/144/Add.1) set out key aspects of the discussions that lead to these amendments but does not provide all the detail. From this report the intention of the above changes was not clear and as drafted, we believe 6.8.2.2.11 could be open to different interpretations.

3. The United Kingdom would therefore welcome an exchange of views on the following points in relation to RID/ADR 6.8.2.2.11:

“Glass level-gauges and level-gauges made of other fragile material ...”

- (a) A “glass” level gauge of the ‘sight glass’ type is clearly not permitted. However, it is not clear how the term “other fragile material” should be interpreted.
- (b) It would seem the intention of using the term “other fragile material” is to prohibit the use of materials that have comparable properties to glass? (i.e. prohibit those having an equivalent level of fragility to glass).
- (c) It therefore follows that a level gauge made of a material such as acrylic which demonstrates a strength and resistance to impact which is greater than “glass” might be considered acceptable.

“... which are in direct communication with the contents of the shell ...”

- (d) If a ‘sight-glass’ type of level gauge incorporates shut-off valves at the top and bottom, such that the level gauge is not in direct communication with the contents of the shell during carriage, might this be considered acceptable.
- (e) However, if the intention is that level gauges made of “glass or other fragile material” should under no circumstances be in direct contact with the “contents of the shell”, it would seem that only level gauges of a ‘float’ type design, where the “glass or other fragile material” is wholly separated from the shell contents might be permitted:



4. In the opinion of the United Kingdom, the requirements of RID/ADR 6.8.2.2.11 are not clear and therefore, should the Working Group on Tanks agree that clarification would be helpful, the United Kingdom will propose amendments for a future session of the Joint Meeting.