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Agenda item 1b: Design and construction of vehicles: specification method; functional/technical solutions

Note for Discussion concerning RID ITEM 1: 6.8.2.1.2

Transmitted by European Union Agency for Railways



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Note for discussion

3rd JCGE – Item 1 concerning RID 6.8.2.1.2

Background

During the RID Committee of Experts held on 13th May 2020, the following footnote was proposed to be included in point 6.8.2.1.2 of RID, covering the construction of a tank wagon and tank container:

- (1) That the maximum working pressure of the tank has been superimposed on the load cases applicable to the assessment of the ability to withstand stresses
- (2) That the operating temperature range of the shell has been taken into account in the load cases applicable to the assessment of the ability to withstand stresses
- (3) That the minimum wall thickness of the shell in accordance with RID 6.8.2.1 and 6.8.2.6 has been taken into account in the load cases applicable to the assessment of the ability to withstand stresses
- (4) Special provisions TE 22 and TE 25 in accordance with RID 6.8.4
- To evaluate points (1) to (3), the procedures and max. allowable stresses acc. TSI or UTP and its referenced standards shall be applied.

The Agency was not in favour of the inclusion of the footnote in RID 2021 and proposed to include the points (1), (2) and (3) of the footnote in the Application Guide of the TSI WAG.

As a result of the discussion held at the RID Committee of Experts, ERA was invited to draft a document for the JCGE clarifying the problems concerning the attributions of Notified Bodies under railway law versus RID. With this aim, the present note contains two elements for discussion:

- The inclusion of clarifications in the Application Guide of the TSI WAG covering the points (1), (2) and (3) of the footnote,
- The next steps proposed to be undertaken for the point 4 of the footnote.

Proposal to amend the Application Guide

With this aim it is proposed to amend point 2.3.4 of the Application Guide of the TSI WAG by adding the text in red:

2.3.4 Point 4.2.2.2: Strength of unit

The structure of a unit body, any equipment attachments and lifting and jacking points shall be designed such that no cracks, no significant permanent deformation or ruptures occur under the load cases defined in Chapter 5 of EN 12663-2:2010.

In case of a rake of a rail compatible system composed of separate rail bogies connected to compatible road vehicles, the load cases may differ from those mentioned above, due to their bi-modal

specification; in such a case, the load cases considered shall be described by the applicant based on a consistent set of specifications with consideration of the specific conditions of use related to train composition, shunting and operation.

'Equipment attachments' include loading devices.

In case of a rake of a rail compatible system composed of separate rail bogies connected to compatible road vehicles, the road vehicles are also subject to the requirements of point 4.2.2.2.

For tank wagons for which fall under the scope of point 6.8.2.1.2 of RID¹, the following is to be taken into account in the load cases to assess the strength of the wagon:

- (1) The maximum working pressure of the tank has been superimposed on the load cases
- (2) The operating temperature range of the shell and
- (3) The minimum wall thickness of the shell in accordance to RID 6.8.2.1 and 6.2.8.6

¹Regulations concerning the International Carriage of Dangerous Goods. These regulations are mandated in Annex II of Directive 2008/68/EC of the European Parliament and of the Council of 24 September 2008 on the inland transport of dangerous goods.

Next steps concerning the point (4) of the footnote

The point (4) of the footnote above refers to two special provisions set out in point 6.8.4 of RID for tank wagons:

- TE 22, containing a passive safety requirement of energy absorption (applicable for both UIC manual and automatic central couplers) and
- TE 25, containing a requirement for protection against buffers overriding (applicable for UIC manual coupling).

These two provisions contain requirements that are not present in the TSI WAG and therefore cannot be explained in its Application Guide.

For the next steps, the applicable process is to submit a request to amend the TSI WAG, via *Clearquest*¹, with the aim to include the relevant provisions in the TSI WAG itself, and to have these changes managed by the on-going Topical Working Group Freight.

This group would be requested to prepare a recommendation for the amendment of the TSI WAG by end 2021 and their findings may arrive on time to be considered in the RID 2023.

¹ *Clearquest* is the web tool use by the ERA and stakeholders to manage change requests to the TSIs.