

Making the railway system  
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INF. 3

7 February 2019

Valenciennes, 06/02/2019

For items 4 and 5 of the JCGE meeting held on 6-8 February 2019 - Bern

## *Prioritisation of JCGE items*

(Submitted by DG MOVE and ERA)

The list of items proposed initially in the final report of the RID/ATMF working group was reviewed with the objective to prioritise items on which DG MOVE and ERA should concentrate their effort.

Once prioritised, it is expected that DG MOVE and ERA should allocate the resources needed to develop solutions that are compatible with EU legislation, in particular railway interoperability and safety, and would be acceptable for RID and CTE experts.

ERA suggests to prioritise JCGE items from top to lower priority, as follows:

- ***(TOP) Priority 1: Preventing reoccurrence of legal inconsistency.***

*It mainly concerns new items*

- o *1.1) under current discussion for which legal amendments may be adopted in short to medium terms by the Joint Meeting or RID Committee, or*
- o *1.2) with strategic and long-term developments characteristics on which a legislative orientation should be advised.*

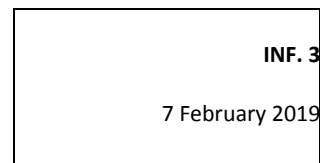
- ***Priority 2: Solving current implementation problems for the existing EU/COTIF legislation.***

*In first instance, it should mainly concern 4RP related implementing issues.*

- o *2.1) Vehicle Authorisation related issues, or*
- o *2.2) Single Safety Certificate related issues, or*
- o *Other to be specified.*

- ***Priority 3: Cleaning backlog***

*It mainly concerns long lasting inconsistencies, already discussed by RID/ATMF working group that should be cleaned but do not currently create big implementation issues.*



Items identified in the conclusions of the RID/ATMF Working group	Excerpt from RID/ATMF final report	Suggested level of priority
<p>1 a - Design and construction of vehicles Scope of RID and Interoperability Directive with respect to vehicle requirements</p>	<p>For reasons of efficiency and clarity it is desirable that all vehicle requirements are checked in the process for admission or authorisation of the vehicles according to respectively ATMF and Directive (EU) 2016/797. The group therefore supports the migration of vehicle requirements from RID to TSIs/UTPs by application of a mutually agreed process.</p> <p>It is noted that in the EU, TSIs for vehicles are applied preceding authorisation the meaning of the EU Interoperability Directive. TSI requirements in principle apply only to new, renewed or upgraded wagons. TSI requirements do not, in principle, apply retroactively to existing vehicles but TSI can – in defined cases – also apply to existing vehicles.</p> <p>RID has the possibility to specify retroactive requirements and already does so by requiring the existing fleet to meet new provisions. A certain deadline (transitional period) for implementation may be defined by so called transitional provisions. ATMF is consistent with RID in the sense that it makes direct reference to RID in Article 19§5:</p> <p>“Regardless of this transitional provision, the vehicle and its documentation shall comply with the prescriptions in force of the UTP concerning marking and maintenance; compliance with the prescriptions of RID in force shall also be ensured, where applicable...”</p> <p>In case of transfer of existing vehicle related requirements from RID to TSIs/UTPs the possibility of retroactive application of requirements in TSIs/UTPs to existing vehicles need to be ensured.</p>	<p>Priority 2 or3</p>

1 b - Design and construction of vehicles Way of specifying; functional/technical solutions	The process described in this paper foresees that protection objectives will be included in RID and that the technical requirements to fulfil these objectives would be included in TSIs/UTPs. The RID could then refer to the TSIs/UTPs where feasible.	Priority 1
1 b - Design and construction of vehicles Way of specifying; functional/technical solutions	6.8.2.1.2 Tank-wagons shall be constructed as to be capable of withstanding, under the maximum permissible load, the stresses which occur during carriage by rail.1 As regards these stresses, reference should be made to the tests prescribed by the competent authority. (This requirement is deemed to be met if – the notified body in charge of verifying compliance with the technical specification for interoperability (TSI) relating to the subsystem "rolling stock – freight wagons" of the rail system in the European Union (Commission Regulation (EU) No 321/2013 of 13 March 2013) or – the assessing entity in charge of verifying compliance with the uniform technical prescriptions (UTP) applicable to the Rolling Stock subsystem: FREIGHT WAGONS – (Ref. A 94-02/2.2012 of 1 January 2014) has successfully evaluated compliance with the provisions of RID, in addition to the requirements of the TSI or UTP mentioned above, and has confirmed this compliance by a relevant certificate.)	Priority 2
1 b - Design and construction of vehicles Way of specifying; functional/technical solutions	6.8.2.1.29 The minimum distance between the headstock plane and the most protruding point at the shell extremity on tank-wagons shall be 300 mm. Alternatively for tank-wagons for substances other than those for which the requirements of special provision TE 25 of 6.8.4 (b) apply, buffer override protection of a design approved by the competent authority shall be provided. This alternative is only applicable to tank-wagons used solely on railway infrastructure requiring a freight vehicle gauge smaller than G1.	Priority 3

<p>1 b - Design and construction of vehicles Way of specifying; functional/technical solutions</p>	<p>6.8.2.5.2 The following particulars shall be inscribed on both sides of the tank-wagon (on the tank itself or on plates):</p> <ul style="list-style-type: none"> <li>– vehicle keeper marking or name of operator;</li> <li>– capacity;</li> <li>– unladen mass of tank-wagon;</li> <li>– load limits according to the characteristics of the wagon and the nature of the lines used;</li> <li>– for the substances according to 4.3.4.1.3, the proper shipping name of the substance(s) accepted for carriage;</li> <li>– tank code according to 4.3.4.1.1;</li> <li>– for substances other than those according to 4.3.4.1.3, the alphanumeric codes of all special provisions TC and TE which are shown in column (13) of Table A of Chapter 3.2 for the sub-stances to be carried in the tank; and</li> <li>– date (month, year) of the next inspection in accordance with 6.8.2.4.2 and 6.8.2.4.3 or with the TT special provisions of 6.8.4 for the sub-stance(s) accepted for carriage. If the next inspection is an inspection in accordance with 6.8.2.4.3, the date shall be followed by the letter "L".</li> </ul>	<p>Priority 2</p>
<p>1 b - Design and construction of vehicles Way of specifying; functional/technical solutions</p>	<p>6.8.3.1.6 Tank-wagons and battery-wagons shall be fitted with buffers with a minimum energy absorption capacity of 70 kJ. This provision does not apply to tank-wagons and battery-wagons fitted with energy absorption elements in accordance with the definition in 6.8.4, special provision TE 22.</p>	<p>Priority 3 in general, but Priority 1: for testing recommended RID/ATMF approach with setting of high level objectives in RID.</p>

1 b - Design and construction of vehicles Way of specifying; functional/technical solutions	Special provision TE 16 No part of the tank-wagon may be of wood, unless this is protected by a suitable coating.	Priority 3
1 b - Design and construction of vehicles Way of specifying; functional/technical solutions	Special provision TE 17 For demountable tanks <sup>21</sup> , the following requirements apply: (a) they shall be so fixed on the underframe of the wagon that they cannot move; (b) they shall not be interconnected by a manifold; (c) if they can be rolled, the valves shall be provided with protective caps.	Priority 3
1 b - Design and construction of vehicles Way of specifying; functional/technical solutions	Special provision TE 22 In order to reduce the extent of damage in the event of a collision shock or accident, each end of tank-wagons for substances carried in the liquid state and gases or battery-wagons shall be capable of absorbing at least 800 kJ of energy by means of elastic or plastic deformation of defined components of the subframe or by means of a similar procedure (e.g. crash elements). The energy absorption shall be determined in relation to a collision on a straight track. Energy absorption by means of plastic deformation shall only occur in conditions other than those encountered during normal conditions of rail transport (impact speed higher than 12 km/h or individual buffer force greater than 1500 kN). Energy absorption of not more than 800 kJ at each end of the wagon shall not lead to transfer of energy to the shell which could cause visible, permanent deformation of the shell. The requirements of this special provision are deemed to be met if crashworthy buffers (energy absorption elements) that conform to clause 7 of standard EN 15551:2009 + A1:2010 (Railway applications – Railway rolling stock – Buffers) are used and if the resistance of the wagon body satisfies clause 6.3 and sub clause 8.2.5.3 of standard EN 12663-2:2010 (Railway applications – Structural requirements of railway vehicle bodies – Part 2: Freight wagons). The requirements of this special provision are deemed to be met by tank-wagons with an automatic coupling device equipped with energy absorption elements capable of absorbing at least 130 kJ at each end of the wagon.	Priority 3 in general, but Priority 1: for testing recommended RID/ATMF approach with setting of high level objectives in RID.

<p>1 b - Design and construction of vehicles Way of specifying; functional/technical solutions</p>	<p>Special provision TE 25 Shells of tank-wagons shall also be protected against the overriding of buffers and derailment or, failing that, to limit damage when buffers override by at least one of the following measures.</p>	<p>Priority 3</p>
<p>1 b - Design and construction of vehicles Way of specifying; functional/technical solutions</p>	<p>Measures to avoid overriding Device to protect against the overriding of buffers The device to protect against the overriding of buffers shall ensure that the sub-frames of the wagons remain on the same horizontal level. The following requirements shall be fulfilled: The device to protect against the overriding of buffers shall not interfere with the normal operation of the wagons (for example negotiating curves, Berne rectangle, shunter's handle). The device to protect against the overriding of buffers shall permit the free taking of curves by another wagon fitted with a device to protect against the overriding of buffers in a curve of 75 m radius). The device to protect against the overriding of buffers shall not interfere with the normal functioning of the buffers (elastic or plastic deformation) (see also special provision TE22 in 6.8.4 (b)). The device to protect against the overriding of buffers shall function independently of the condition of the load and the wear and tear of the wagons concerned. The device to protect against the overriding of buffers shall withstand a vertical force (upwards or downwards) of 150 kN. The device to protect against the overriding of buffers shall be effective irrespective of whether the other wagon concerned is fitted with a device to protect against the overriding of buffers. It shall not be possible for devices to protect against the overriding of buffers to obstruct each other. The increase in the overhang for fixing the device to protect against the overriding of buffers shall be less than 20 mm. The width of the device to protect against the overriding of buffers shall be at least as big as the width of the buffer head (with the exception of the device to protect against the overriding of buffers located above the left-hand footboard, which shall be tangent to the free space for the shunter, although the maximum width of the buffer must be covered). A device to protect against the overriding of buffers shall be located above every</p>	<p>Priority 3</p>

	<p>buffer.                  The device to protect against the overriding of buffers shall permit the attachment of buffers prescribed in standards EN 12663-2:2010 Railway applications – Structural requirements of railway vehicle bodies – Part 2: Freight wagons and EN 15551:2009 + A1:2010 (Rail-way applications – Railway rolling stock – Buffers) and shall not present an obstacle to maintenance work.                  The device to protect against the overriding of buffers shall be built in such a way that the risk of penetration of the tank end is not in-creased in the event of a shock.</p>	
<p>1 b - Design and construction of vehicles                  Way of specifying; functional/technical solutions</p>	<p>Measures to limit damage when buffers override                  Increasing the wall thickness of the tank ends or using other materials with a greater energy absorption capacity                  In this case, the wall thickness of the tank ends shall be at least 12 mm. However, the wall thickness of the ends of tanks for the carriage of gases UN 1017 chlorine, UN 1749 chlorine trifluoride, UN 2189 dichlorosilane, UN 2901 bromine chloride and UN 3057 trifluoroacetyl chloride shall in this case be at least 18 mm.                  Sandwich cover for tank ends                  If protection is provided by a sandwich cover, it shall cover the entire area of the tank ends and shall have a specific energy absorption capacity of at least 22 kJ (corresponding to a wall thickness of 6 mm), which shall be measured in accordance with the method described in Annex B to EN standard 13094 "Tanks for the transport of dangerous goods – Metallic tanks with a working pressure not exceeding 0.5 bar – Design and construction". If the risk of corrosion cannot be eliminated by structural measures, it shall be made possible to undertake an inspection of the external wall of the tank end, e.g. by providing a removable cover.</p>	<p>Priority 3</p>

<p>1 b - Design and construction of vehicles Way of specifying; functional/technical solutions</p>	<p>Protective shield at each end of the wagon If a protective shield is used at each end of the wagon, the following requirements shall apply:</p> <ul style="list-style-type: none"> <li>• the protective shield shall cover the width of the tank in each case, up to the respective height. In addition, the width of the protective shield shall, over the entire height of the shield, be at least as wide as the distance defined by the outside edge of the buffer heads;</li> <li>• the height of the protective shield, measured from the top edge of the headstock, shall cover either two thirds of the tank diameter or at least 900 mm and shall in addition be equipped at the top edge with an arresting device for climbing buffers;</li> <li>• the protective shield shall have a minimum wall thickness of 6 mm;</li> <li>• the protective shield and its attachment points shall be such that the possibility of the tank ends being penetrated by the protective shield itself is minimized.</li> </ul>	<p>Priority 3</p>
<p>1 b - Design and construction of vehicles Way of specifying; functional/technical solutions</p>	<p>Protective shield at each end of wagons fitted with automatic couplers If a protective shield is used at each end of the wagon, the following requirements shall apply:</p> <ul style="list-style-type: none"> <li>• the protective shield shall cover the tank end to a height of at least 1100 mm, measured from the top edge of the headstock, the couplers shall be fitted with anticreep devices to prevent unintentional uncoupling and the protective shield shall, over the entire height of the shield, be at least 1200 mm wide;</li> <li>• the protective shield shall have a minimum wall thickness of 12 mm;</li> <li>• the protective shield and its attachment points shall be such that the possibility of the tank ends being penetrated by the protective shield itself is minimized.</li> </ul> <p>The wall thicknesses specified in (b), (c) and (d) above relate to reference steel. If other materials are used, except if mild steel is used, the equivalent thickness shall be calculated in accordance with the formula in 6.8.2.1.18. The values of Rm and A to be used shall be specified minimum values according to material standards.</p>	<p>Priority 3</p>
<p>1 b - Design and construction of vehicles Way of specifying; functional/technical solutions</p>	<p>OTHER inputs since 2017 ? BASF study for extra large containers / spigots and labelling of carrying wagons</p>	<p>Priority 1</p>



<p>1 b - Design and construction of vehicles Way of specifying; functional/technical solutions</p>	<p>OTHER inputs since 2017 ? Central coupling and harmonised energy absorption</p>	<p>Priority 3 in general, but Priority 1 for testing recommended RID/ATMF approach with setting of high level objectives in RID.</p>
<p>2 a - Vehicle authorisation process Responsibilities for conformity assessment (Notified Body for vehicles)</p>	<p>7.1.1 (NOTE): Wagons are allowed to be equipped with detection devices which indicate or react to the occurrence of a derailment, provided that the requirements for the authorisation for placing into service of such wagons are met. The requirements for placing into service of wagons cannot prohibit or impose the use of such detection devices. The circulation of wagons shall not be restricted on the grounds of the presence or lack of such devices.</p>	<p>Priority 3</p>
<p>2 a - Vehicle authorisation process Responsibilities for conformity assessment (Notified Body for vehicles)</p>	<p>Respective roles of the railway NoBo and the Tank assessing experts + proper use of norms 14025 and 12663</p>	<p>Priority 2</p>
<p>2 b - Vehicle authorisation process Authorisation process and involved actors (competent authority)</p>	<p>Conclusions of the Joint Meeting working group on inspection and certification of tanks</p>	<p>Priority 1</p>

<p>3 a - Design and construction of vehicles</p> <p>Decision making process/criteria for new provisions, impact assessment and consultation process. Interface analysis between subsystems within the railway system</p>	<p>The group recognises that the RID/TDG and CTE/RISC have their respective decision making processes, including impact assessment, consultation processes etc. These processes are not called into question. There is now, and there could be in the future, a need for coordination of views on certain topics. For this reason two priorities are suggested in this paper concerning:</p> <ul style="list-style-type: none"> <li>- Priority items: The consensual migration of vehicle related RID requirements to TSIs/UTPs which is a specific implementation of the general process described in section 2,</li> <li>- Lower priority items which may also need to be addressed in the future by the general coordination process described in section 2.</li> </ul> <p>Decision-making process harmonisation is already address by another workflow organised by the Agency (TDG Roadmap) with the participation of TDG experts. This subject is already coordinated, the results of this workflow may help the JCEG when available.</p>	<p>Priority 1 concerning the voluntary implementation of the Inland TDG risk management framework, when necessary.</p>
<p>4 a - Operation and maintenance</p> <p>Train composition: RID and the application of TSI OPE</p>		<p>Priority 2</p>
<p>4 b - Operation and maintenance</p> <p>Actors and terminology: e.g. carrier vs RU, tank wagon operator vs keeper</p>	<p>Some RID terminology is similar to terminology used in the transport of dangerous goods by other transport modes. This explains why some terminology used in RID is different from terminology used in general railway legislation. This subject is not considered critical as where needed RID clarifies the terminology so that it can be also understood in terms of general railway legislation.</p> <p>Some examples:</p> <p>Carrier: company who transports the dangerous goods. The carrier according to RID is the railway undertaking who is effectively carrying out the transport. RID specifies that the wording of "tank-wagon operator" is equivalent to the wording "vehicle keeper".</p> <p>A table of correspondence, where relevant with explanations, could be developed to help both sides understand the respective roles and responsibilities.</p>	<p>Priority 2</p>

4 c - Operation and maintenance Telematics and the TAF TSI	Possible interaction between TAF TSI and 1.4.2.2.5, 1.4.3.6 (b) and 5.4.0 of RID à to be analysed	Priority 1
4 d - Operation and maintenance Maintenance process and rules	With the introduction of the concept of the entity in charge of maintenance (ECM) in RID 2017, this topic is an example of good coordination between both domains of law. This subject may require coordination in the future, for which this paper suggests a process.	Priority 2
4 e - Operation and maintenance Safety responsibilities	Safety responsibilities of the actors as defined in Directive 2008/68/CE and chapter 1.4 of RID, in relation to new Safety Directive (EU) 2016/798.	Priority 1, including taking into account new Annex H to COTIF.
5 a -Coordination processes between RID and general railway legislation In case of a change to the railway system. This may concern many aspects such as vehicles, the way trains are operated, etc.		Priority 1 concerning the voluntary implementation of the Inland TDG risk management framework, when necessary.
5 b -Coordination processes between RID and general railway legislation For reporting of accident/incidents and statistics	<p><b>New working group created by UNECE identifying interfaces with ERA tasks</b></p> <p><b>Obsolete:</b> (The Agency organises workshops on risk management in the context of Inland Transport of Dangerous Goods. There is no direct need for additional coordination.)</p>	Priority 1

<p>5 c - Coordination processes between RID and general railway legislation For national rules and their legal justification (RID/Railway Safety Directive) and possibilities of either harmonising or removing them.</p>	<p>National provisions appear in different forms and are sometimes not very transparent. Besides national provisions there may be arrangements at national level in the form of private agreements. In general national requirements are not helpful for international harmonisation and the aim should therefore be to harmonise them or to remove them. The new coordination group as suggested in this paper could help in harmonising national rules which have their origin in the two domains of law (e.g. RID and the safety directive / national safety rules) or could give advice on removing them on the basis of one of the domains of law.</p>	<p>Priority 2</p>
<p>NEW items (see list provided by OTIF)</p>		