

OTIF



**ORGANISATION INTERGOUVERNEMENTALE POUR
LES TRANSPORTS INTERNATIONAUX FERROVIAIRES**

**ZWISCHENSTAATLICHE ORGANISATION FÜR DEN
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**INTERGOVERNMENTAL ORGANISATION FOR INTER-
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TO THE GOVERNMENTS OF THE MEMBER STATES OF OTIF

**Report of the 9th meeting of the RID Committee of Experts'
Working Group on Tank and Vehicle Technology**

(Berne, 14 and 15 May 2008)

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1. The 9th meeting of the RID Committee of Experts' working group on tank and vehicle technology was held at the headquarters of OTIF on 14 and 15 May 2008.
2. The following States took part in the discussions at this session: Belgium, Croatia, Czech Republic, France, Germany, Netherlands, Spain, Sweden, Switzerland and United Kingdom. The European Commission and the European Railway Agency (ERA) were also represented. In addition, the International Union of Railways (UIC) and the International Union of Private Wagons (UIP) took part (see Annex 2 of document OTIF/RID/CE/GT/2008-A/Add.1).

Chairmanship of the working group

3. As decided at the 44th session of the RID Committee of Experts (see report OTIF/RID/CE/2007-A, paragraph 108), Mr Rainer Kogelheide (Germany) chaired the working group and Mr Arne Bale (United Kingdom) was the deputy chairman.

ITEM 1: Approval of the agenda

4. The provisional agenda contained in the invitation (document A 81-03/502.2008), as amended by document INF.6, was adopted.

ITEM 2: Minimum distance of 300 mm between the headstock plane and the tank – inclusion of a provision from UIC leaflet 573

Document: OTIF/RID/CE/GT/2008/1 (Belgium)
Informal documents: INF.5 (United Kingdom)
 INF.7 (United Kingdom)

5. In document OTIF/RID/CE/GT/2008/1, Belgium proposed to incorporate into RID the minimum distance of 300 mm between the headstock plane and the tank, as prescribed in UIC leaflet 573. Up to now, this provision has not been included in the Technical Specifications for Interoperability (TSI) or in RID.
6. At the 44th session of the RID Committee of Experts, the representative of the United Kingdom had raised the objection that as a rule, on tank-wagons used in **Great Britain**, the distance of 300 mm required between the headstock and the most protruding point at the tank extremity was reduced by having a longer tank, in order to compensate for the smaller tank **diameter**; the smaller tank **diameter** was the result of the smaller loading gauge. However, in cases where the 300 mm could not be achieved, buffer override protection was prescribed. In Belgium's document, this was taken into account by the alternative application of the measures set out in special provision TE 25.
7. In his informal document INF.5, the representative of the United Kingdom proposed a different wording. On the one hand, this would take account of the fact that tank-wagons in **Great Britain** to which special provision TE 25 **would apply, would** have a minimum distance of 300 mm and on the other hand, for other tank-wagons – as has been usual in **Great Britain** up to now – the text would enable protection against the overriding of buffers to be used.
8. There was a consensus in the working group concerning the incorporation of the provision from the UIC leaflet. However, it was not possible to reach agreement on the form in which the alternative should be included in RID:
 - should the alternative be restricted to **Great Britain** or should the alternative be valid for all the cases of a restricted loading gauge listed in the Technical Specifications for Interoperability (TSI) on Conventional Railway Infrastructure?
 - must this special case be dealt with in RID or could it be dealt with by a derogation from the EU Framework Directive?

9. In informal document INF.7 drafted during the meeting, the representative of the United Kingdom submitted new wording, which was provisionally adopted in square brackets (see Annex 1). The representatives of the United Kingdom and the European Railway Agency were asked to check before the next meeting whether this national derogation could be included in RID.

ITEM 3: Drip leaks

Informal document: INF.4 (Germany)

10. In his informal document, the representative of Germany summarised the progress of the research project being carried out by the German Petroleum Industry Association (MWV). The main cause of defects in tightness/drip leaks was residual amounts of substances in the filling and discharge system, in conjunction with closure devices that were not fully closed. He explained that once the research project had been concluded, Germany would submit specific proposals for amendments.
11. Various participants welcomed the research project and the meeting hoped that the amendments to the requirements would solve the problem of drip leaks.

ITEM 4: Evaluation of the letters and research reports sent by the Association of American Railroads (AAR)

Informal document: INF.1 (Press release)

12. The working group noted the press release reproduced in INF.1 concerning the measures planned in the USA to improve safety and to reduce the speed of rail tank-wagons carrying substances toxic upon inhalation.

Informal document: INF.3 (Germany)

13. The working group noted Germany's comments on documents INF. AAR 1, INF. AAR 2 and INF. AAR 3 from the Association of American Railroads (AAR).

Reducing leaks

14. In reply to a request from the meeting, Germany explained that certain fittings that cannot be completely emptied because they have bends in them are no longer allowed in Germany.
15. The chairman added that in this regard, the meeting should await the results of the German research project (see also paragraphs 10 and 11).

Tank and tank end protection

16. The Chairman said that accident investigations had shown that side impacts had not caused a degree of damage that was comparable to that caused by the overriding of buffers and that the side protection referred to in the AAR document had not therefore been followed up.

Operating practices

17. It was recalled that following up the subjects of speed restrictions and bypassing built-up areas had been ruled out, because a rule on this cannot be included in RID and must therefore be dealt with at national level. However, it was also observed that in future, certain questions could also be dealt with at international level once telematics solutions became available (e.g. hot box detection using telematics instead of fixed detectors).

Training

18. The results of the German research project should also be awaited before dealing with this issue (see paragraphs 10 and 11). Further discussion could take place in connection with agenda item 6 (tank-wagon handbook).
19. Following this discussion, the subject of “letters and research reports of the AAR” was closed for the time being.

ITEM 5: Reports on incidents in the carriage of dangerous goods in accordance with section 1.8.5 of RID

Informal document: INF.2 (Sweden)

20. The representative of Sweden presented the results of the accident investigation set out in informal document INF.2. The accident occurred on 28 February 2005 in Ledsgård and Sweden had first reported to the working group on this accident at its 6th meeting (Bonn, 21 and 22 April 2005) (see report A 81-03/503.2005, paragraphs 28 and 29).
21. The cause of the accident was the incorrect position of the brake lever on the tank-wagons (“EMPTY” instead of “LADEN”). This accident had again highlighted the fact that there are no effective barriers to prevent the movement of a train with insufficient braking power.
22. The results of the accident investigation had shown that the energy absorption of the protective shields fitted to the tank-wagons was relatively low and that higher values could be achieved by the method of attachment of the shield (e.g. screwing it on instead of welding it on).
23. In addition, with regard to buffers that were on a curved section of track at the time of the impact, it was noted that overriding of the buffers occurred before the energy absorption element of the buffers was able to respond. In these cases, the tank shield and the tank would have to have absorbed even more energy.
24. The following points in particular were brought up in the discussion:
 - As the meeting did not consider the problem of braking to be specific to the dangerous goods sector, ERA was asked to examine brake performance as an issue for the railway system as such (see also the report of the 44th session of the RID Committee of Experts, document OTIF/RID/CE/2007-A, paragraph 99 and paragraphs 28 to 30 of this report). The ERA representative explained that the work would be done by ERA for the EU railway system according to the new co-operation agreement between EC/ERA and the RID Committee of Experts adopted in November 2007 by the EU Committee on the Transport of Dangerous Goods. In order to carry out this work, ERA would be interested in obtaining from the working group on tank and vehicle technology detailed justification for the need and explanations on the objectives for the dangerous goods sector.
 - The purpose of the protective shield is not to absorb energy, but to protect the tank from the puncturing effect of the buffers. This was why protective shields covering the whole of the tank end were sometimes used. Nevertheless, the question of attaching the tank shields better should be examined on the basis of a technical document.
 - As the accident report had shown that if they functioned correctly, the energy absorption elements on all buffers should have been able to absorb 70% of the total energy of the impact at 39 km/h, a check should be carried out to see how the slipping off of buffers and hence the reduction of the effectiveness of energy absorption elements could be prevented.

ITEM 6: Tank-wagon handbook

25. The working group participants were asked to consider before the next meeting how this subject should be taken forward.
26. The representative of Germany proposed that an archive be set up on OTIF's website. All participants could contribute their knowledge to this archive.
27. Although he has retired, Mr Visser should be asked whether he would be prepared to assist with this handbook and make available the documents that he has collected.

ITEM 7: Monitoring the main brake pipe/air-brake check

28. The Chairman reminded the meeting that at its 44th session, the RID Committee of Experts had asked the representative of ERA to check whether the question of monitoring the main brake pipe could be followed up by his Agency in relation to all rail transport.
29. The representative of ERA explained that the Agency was currently examining the issue of the end of train device, although initially, this would be from the point of view of recognising the train from behind (end of train signal). He informed the meeting of the possibility for ERA to examine the issue in relation to "monitoring the main brake pipe" (see also paragraph 24) because this is a railway system issue. However ERA could not guarantee that this aspect would be dealt with in the interim report that was anticipated at the end of 2008 in the work programme for revising the TSIs.
30. The Chairman of the RID Committee of Experts again recalled that various accident assessments had shown that brake problems had led to serious accidents. This fact should result in an amendment to the TSI. Should the need for this not be recognised by ERA, the RID Committee of Experts would be compelled to continue its work on finding a solution for the dangerous goods sector. He wished to ensure that the RID Committee of Experts would have the opportunity of examining ERA's interim report before the final report was published. He would also make this wish known at the meeting of the European Commission's Interoperability Committee.

ITEM 8: Proposals for the 2009 edition of RID

Marking in accordance with 6.8.2.5.2

Document: OTIF/RID/CE/GT/2008/2 (Belgium)
Informal document: INF.8 (Belgium)

31. In her document OTIF/RID/CE/GT/2008/2, the representative of Belgium proposed to require that information also be provided on the tank-wagon to say whether the next inspection to be carried out was an intermediate inspection, which, according to an amendment already adopted for the 2009 edition of RID, may be carried out up to three months after the prescribed deadline. This would make matters easier for railway inspection staff, who would otherwise have to climb up onto the wagon platform to be able to check the information on the tank plate.
32. After a prior exchange of views with various delegations, the representative of Belgium submitted an informal document, INF.8, which only proposed an addition to the text of the existing eighth indent of 6.8.2.5.2.
33. The majority of the working group was in favour of the modified proposal submitted by the representative of Belgium in informal document INF.8, but with the amendment that after the date for the next intermediate inspection as in 6.8.2.5.1, the letter "L" should be shown.

34. However, following this decision, some delegations were of the view that there was no hurry to implement this and that it would be sufficient if this were to enter into force on 1 January 2011.
35. The working group was of the view that the question of the entry into force should be dealt with in the 45th session of the RID Committee of Experts.

ITEM 9: Any other business

Mechanical strength of rail tank-wagons

Document: OTIF/RID/CE/GT/2008/3 (UIP)

36. In his document OTIF/RID/CE/GT/2008/3, the representative of UIP said that the wording of 6.8.2.1.2 concerning the mechanical strength test to be carried out on tank-wagons led to problems of interpretation. He explained that the original test programme according to ORE Report B12/RP17 had now been incorporated into standard EN 12663, which also allowed calculation using the Finite Element Method (FEM) in place of tests. He wished to hear the meeting's views on whether the wording should be amended in order to avoid the possibility of differing interpretations.
 37. For the next meeting, the working group asked the representative of UIP to prepare a text specifying the standards according to which the mechanical strength has to be demonstrated. The standard quoted would then have to be checked to see whether the requirements it contains are sufficient.
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Texts adopted by the working group

[Add the following transitional provision to 1.6.3:

"1.6.3.x Tank-wagons constructed before 1 January 2011 in accordance with the requirements in force up to 31 December 2010, but which do not conform to the requirements of 6.8.2.1.29 applicable as from 1 January 2011, may still be used."]

[Ref.doc.: OTIF/RID/CE/GT/2008/1]

[Insert a new 6.8.2.1.29 to read as follows:

"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 in circumstances where the Conventional Rail Infrastructure Technical Specification for Interoperability (TSI) provides for a specific case because of loading gauge constraints."]

[Ref. doc.: INF.7]

1.6.3.25 Add the following sub-paragraph:

"The letter "L" required by 6.8.2.5.2 need not be added to the tank-wagon until the first test after 1 January 2009 is performed."

[Ref. doc.: OTIF/RID/CE/GT/2008/2 as amended]

6.8.2.5.2 Add the following sentence at the end of the eighth indent in the left-hand column:

"If the next inspection is an inspection in accordance with 6.8.2.4.3, the date shall be followed by the letter "L"."

[Ref. doc.: OTIF/RID/CE/GT/2008/2 as amended]