

**OTIF**



**ORGANISATION INTERGOUVERNEMENTALE POUR  
LES TRANSPORTS INTERNATIONAUX FERROVIAIRES**

**ZWISCHENSTAATLICHE ORGANISATION FÜR DEN  
INTERNATIONALEN EISENBAHNVERKEHR**

**INTERGOVERNMENTAL ORGANISATION FOR INTER-  
NATIONAL CARRIAGE BY RAIL**

**INF. 7**

9 February 2011

Original: English

**RID/ADR/ADN**

Joint Meeting of the RID Committee of Experts and the  
Working Party on the Transport of Dangerous Goods  
(Bern, 21 – 25 March 2011)

**Agenda item 2: Tanks**

**5.4.1.2.2 (d)**

**Proposal submitted by the International Union of Railways (UIC)**

**Introduction**

1. In document OTIF/RID/CE/2010/19 (Annex 1) submitted to the 49<sup>th</sup> session of the RID Committee of Experts held from 2 – 4 November 2010 in Luxembourg, the International Union of Railways requested the Committee to verify whether the provisions of RID 5.4.1.2.2 (d) also applied to empty uncleaned tank wagons, portable tanks and tank-containers. It was also requested that the Joint Meeting examine whether similar rules should be included in ADR/ADN, with a particular focus on tank-containers.
2. The meeting noted that one possible solution would be to introduce rules governing both the actual holding time and reference holding time for tanks/tank-wagons, in the same way as these are currently defined for portable tanks under RID/ADR 4.2.3.7 and 6.7.4.2.8 respectively.
3. The proposal having been dealt with, UIC was requested to prepare a new proposal for the Joint Meeting's "Tank" Working Group (see paragraphs 30 – 33 of the report on the 49<sup>th</sup> session of the RID Committee of Experts on the Transport of Dangerous Goods held from 2 – 4 November 2010 in Luxembourg (see extracts in Annex 2)).

For reasons of cost, only a limited number of copies of this document have been made. Delegates are asked to bring their own copies of documents to meetings. OTIF only has a small number of copies available.

## Proposal

4. The Joint Meeting is requested to verify whether the provisions of RID 5.4.1.2.2 (d) (and the corresponding special provision CW 30 of RID 7.5.11) may be deleted and replaced by rules governing both the actual holding time and reference holding time for tanks and tank-wagons, in the same way as these are currently defined for portable tanks under RID/ADR 4.2.3.7 and 6.7.4.2.8 respectively.
  5. Furthermore, since the problem of safety valves opening prematurely is often attributable to errors during filling, it should be verified whether the special provisions applicable to Class 2 currently defined in 4.3.3 should be expanded to include more detailed information, such as are provided in 4.2.3.6 for the filling of portable tanks loaded with refrigerated liquefied gases.
  6. In addition, the need for additional measures concerning both safety valves and tank insulation should be examined, since in some cases the premature opening of valves may be attributable to technical or maintenance defects affecting these components.
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OCTI/RID/CE/40/6e)

20 October 2003

Original: German

**RID:** 49<sup>th</sup> Session of the Committee of Experts on the Transport of Dangerous Goods  
(Luxembourg, 2 – 4 November 2010)

**Subject:** RID 5.4.1.2.2 (d)

### Proposal from the International Union of Railways (UIC)

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#### Introduction

1. RID 5.4.1.2.2 (d) obliges consignors of tank-wagons, portable tanks and tank-containers carrying refrigerated liquefied gases to include the following declaration in the transport documents:

"The tank is guaranteed as insulated in order that the safety valves cannot open before ... (date accepted by the railway)."

2. The wording of the text does not clearly state whether the paragraph is only valid for loaded containers or also for empty uncleaned tank-wagons, portable tanks and tank-containers.
3. At DB Schenker Rail Deutschland AG's request, this question was addressed in Germany in the Class 2 Working Group of the permanent Committee for the Transport of Dangerous Goods (AGGB). The following was noted in the minutes of the meeting held on 26.08.2009:

"The activation and blowing of safety valves of emptied gas tank-wagons during the transit of a freight train is harmless in principle; however checks as to whether an oxygen-reduced atmosphere is forming which could put people in danger are not to be conducted during a stop in a tunnel or at an inappropriate point outdoors (e.g. station area)."

4. The purpose of the stipulated entry in the transport documents is to ensure that:
  - the consignor agrees the planned duration of the journey with the carrier prior to carriage (cf. RID, section 7.5.11, special provision CW 30);
  - the filler coordinates the date with the consignor so as to fill the tank ensuring the safety valves will not be activated prior to the consignment arriving at the consignee;
  - the carrier can manage the consignment in the event of delays so that it arrives at the consignee prior to the entered date.
5. In practice, however, there have already been cases of the safety valve opening prior to the date stated in the transport documents. This can be explained as follows:
  - for example when portable tanks are reconsigned in sea ports, the consignor has no information concerning the reference holding time and therefore enters a 'suitable' date based on transport time;
  - the safety valves are activated because, for example, the insulation or the valves themselves are faulty;
  - defective filling of the tank.
6. Regardless of whether a date has been entered in the transport document or whether the entered date has been exceeded or not, the opening of a safety valve always constitutes an irregularity which must be investigated before continuing carriage as defects cannot be ruled out a priori (cf. RID 1.4.2.2.4).
7. The question of the necessity of the entry required by RID 5.4.1.2.2 (d) concerning safety valves was addressed at Austria's request at the 40<sup>th</sup> meeting of the RID Committee of Experts (Sinaia, 17 to 21 November 2003).
8. The following is noted in the report A 81-03/501.2004 of 31 January 2004:

"Carriage of refrigerated liquefied gases

Document: OCTI/RID/CE/40/6e) (Austria) (see also annex to this document)

82. The Austrian representative presented the arguments which support the abolition of the provision of information concerning the opening of the safety valve when transporting refrigerated liquefied gases, emphasising that, from a safety point of view, this regulation creates more problems than it solves.
83. Supported by 13 of the 17 UIC railway undertakings represented in the RID Group of Experts, the UIC representative requested that the regulation be retained for safety reasons (to rectify irregularities, informing producers so they can react appropriately).
84. Following the discussion the Austrian representative retracted his proposal, recommended, however, that a solution be found to the carriage issues encountered in the context of this regulation. As this problem also affected tank-containers and therefore the ADR, the Chairman proposed that this task be delegated to the Tank Working Group of the Joint Meeting."

## Proposal

9. It is requested that the RID Committee of Experts verify whether the conditions in 5.4.1.2.2 (d) are fundamentally necessary and, if so, whether they must also be applied to the carriage of empty uncleaned tank-wagons, portable tanks and tank-containers. Once a decision has been taken, the text of 5.4.1.2.2 (d) should be modified to clearly state whether or not the conditions apply to the carriage of empty uncleaned tank-wagons, portable tanks and tank-containers.
  10. In the event that the RID Committee of Experts decides that the conditions shall fundamentally be retained, it is to be verified by the Joint Meeting, as decided in the 40<sup>th</sup> meeting of the RID Committee of Experts, whether similar regulations should be included in the ADR/ADN, with a particular focus on tank-containers.
  11. Should the RID Committee of Experts decide that the regulations in 5.4.1.2.2 (d) (and the corresponding special provision CW 30) can be deleted, the Joint Meeting is to verify whether new provisions concerning the actual holding time and the reference holding time as prescribed in 4.2.3.7 resp. 6.7.4.2.8 for portable tanks should also be prescribed for tank-wagons and tank-containers.
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OCTI/RID/CE/40/6e)

20 October 2003

Original: German

**RID:** 40<sup>th</sup> Session of the Committee of Experts on the Transport of Dangerous Goods  
(Sinaia (Romania), 17 - 21 November 2003)

**Subject:** RID 5.4.1.2.2 (d), information concerning the opening of safety valves on tank  
wagons and tank-containers carrying deeply refrigerated liquefied gases

**Proposal transmitted by Austria**

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## SUMMARY

### Analytical summary

The current rule in RID 5.4.1.2.2 (d) prescribes for tank wagons and tank-containers carrying deeply refrigerated liquefied gases information to be entered by the consignor concerning the opening of safety valves.

This provision, which only applies to rail transport (also in respect of tank-containers) and which firstly, in practice, does not fulfil its objective and secondly, leads to various problems, should no longer appear in RID.

### Measures

Delete RID 5.4.1.2.2 (d).

### Documents

Report of the working group on RID/ADR 1.1.4.2.2 (INF 38. of the RID/ADR Joint Meeting in Autumn 2003).

## Introduction

The current version of 5.4.1.2.2 (d) reads as follows:

(d) In the case of tank wagons and tank-containers containing gases [N.B.: this should read "deeply refrigerated liquefied gases" in the English version of RID], the consignor shall enter in the consignment note:

"THE TANK IS GUARANTEED AS INSULATED IN ORDER THAT THE VALVES CANNOT OPEN BEFORE ... (date accepted by the railway)".

As is demonstrated in practice, the information required does not fulfil its objective, since for many reasons, the valves can nevertheless open before the date specified. For example, it is possible that

- the insulation is faulty,
- the safety valves are faulty,
- the gases were filled at too high a temperature,
- the time the valves will open has been calculated incorrectly or
- the specified times the valves will open are in some cases – according to what one hears – based entirely on pure estimates.

Tank-containers pose an additional problem in this respect. They are very often reconsigned on their actual itinerary; this means that several consignment notes are made out and each new consignor simply copies this information down without knowing whether the time for the valve to open is correct.

An example will serve to clarify this further: a tank-container carrying argon is carried from a sea port to a railway station in Austria. The transport operation ends there, the consignment is reconsigned, the consignee becomes the consignor of the new consignment. The tank-container is reconsigned twice more at two other stations until it arrives finally at its destination in, e.g., Greece. For each new transport operation, the carrier checks whether the time of opening given for the valves is observed for each transport operation. In combined transport though, it can happen that tank-containers must wait one or two days for the next direct train. At the time of the initial transport operation, it is not therefore possible for the consignor/carrier to work out exactly when the tank-container will actually arrive at the final destination, or else the consignor or carrier does not even have information on where the tank-container is ultimately bound.

As many railways in Europe repeatedly experience problems of the type outlined, especially in summer, the question arises as to the sense of providing information which, for the reasons given, can only be relied upon with reservations.

### **Proposal**

It is proposed to delete 5.4.1.2.2 (d).

### **Justification:**

Safety: Since, in practice, this information can only be relied upon with reservations, deleting it would entail no loss of safety.

Feasibility: Deletion means rail transport would be aligned with the provisions applicable to the other transport modes and the removal of a provision which is often hardly feasible.

Transitional rule: Does not seem necessary, as the adjustment is possible within the six months allowed under the general transitional period (1.6.1.1).

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**Extract of the report of the 49<sup>th</sup> session of the RID Committee of Experts  
(Luxembourg, 2 - 4 November 2010) (document OTIF/RID/CE/2010-B)**

**RID 5.4.1.2.2 (d)**

*Document:* OTIF/RID/CE/2010/19 (UIC)

30. In his proposal, the representative of UIC asked the RID Committee of Experts to verify whether the provision in 5.4.1.2.2 (d) (information on the earliest time at which the safety valves will open) was fundamentally necessary and, if it were, whether it must also be applied to the carriage of empty, uncleaned tank-wagons, portable tanks and tank-containers. He recalled that at its 40<sup>th</sup> session, the RID Committee of Experts had supported keeping the entry in the transport document, but that the problem of valves opening prematurely continued to exist.
  31. The discussion revealed that the aim of the rule was to ensure that the gas remained inside the tank throughout the entire transport operation, and that deleting the entry would not provide a solution. It should instead be considered whether the international system applicable to portable tanks had advantages compared with making an entry in the transport document; this system requires that a reference holding time in accordance with 6.7.4.2.8 and an actual holding time in accordance with 4.2.3.7 be determined, and that these times be indicated on the tank.
  32. However, the representative of the Netherlands pointed out that the current provision, according to which the consignor has to give some consideration to the duration of the transport operation, was also of benefit to the carrier.
  33. The representative of UIC was asked to prepare a new proposal for the Joint Meeting's tank working group explaining the discussion in the RID Committee of Experts and considering in more detail how the technical causes of premature discharge (e.g. defective insulation) might be remedied.
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