



Economic Commission for Europe**Inland Transport Committee****Working Party on the Transport of Dangerous Goods****Joint Meeting of the RID Committee of Experts and the
Working Party on the Transport of Dangerous Goods**

Bern, 25-28 March 2024

Item 2 of the provisional agenda

Tanks**Clarification of the role of the consignor in the expedition of
tank-wagons, tank-containers and portable tanks for the
carriage of refrigerated liquefied gases (loaded and empty
uncleaned)****Transmitted by the International Union of Railways (UIC)*,******I. Introduction**

1. At its autumn 2023 session, the RID/ADR/ADN Joint Meeting adopted the proposal from UIC (ECE/TRANS/WP.15/AC.1/2023/26) to:

- Amend 4.3.3.5 by adding the following new sentence at the end: “The requirements of 4.3.3.5 need not be complied with for empty, uncleaned tanks/tank-containers.”
- And to amend 4.3.3.6 to read (new wording in *italics, underlined*):

"4.3.3.6 Tanks/Tank-containers shall not be offered for carriage:

- (a) In an ullage condition liable to produce an unacceptable hydraulic force due to surge within the shell;
- (b) When leaking;
- (c) When damaged to such an extent that the integrity of the tank-container or its lifting or securing arrangements may be affected;
- (d) Unless the service equipment has been examined and found to be in good working order;

and for refrigerated liquefied gases:

* A/78/6 (Sect.20), table 20.5.

** Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2024/26.



(e) Unless the actual holding time for the refrigerated liquefied gas being carried has been determined;

(f) Unless the duration of carriage, after taking into consideration any delays which might be encountered, does not exceed the actual holding time;

(g) Unless the pressure is steady and has been lowered to a level such that the actual holding time may be achieved⁴;

(h) When empty, uncleaned, unless the pressure has been reduced to a level that ensures that the pressure relief devices will not activate during carriage⁴."

2. UIC also proposed to make explicit that what is regarded as the responsibility of the consignor, namely, to determine the holding time and to dispatch tanks which are empty not cleaned with the pressure lowered to such an extent that the pressure limiting devices will not activate during carriage by rail. The Joint Meeting confirmed that these responsibilities lie with the consignor:

From the report of the Working Group on Tanks (ECE/TRANS/WP.15/AC.1/170/Add.1):

"Item 3: Clarification of the provisions on the holding time for the carriage of tanks with refrigerated liquefied gases

Document: ECE/TRANS/WP.15/AC.1/2023/26 (UIC)".

5. There was general support for the principle. It was agreed that the consignor is responsible for offering the empty uncleaned tank-wagons and tank-containers in a condition that the pressure relief devices are not activated during carriage."

II. Issue

3. However, the Working Group on Tanks could not agree on a wording and choice of chapter for this clarification of the role of the consignor (for details on the discussion, see annex).

4. UIC considers the amendments that were accepted by the Joint Meeting to be an improvement. Nevertheless, UIC still fears that doubts about who is responsible for fulfilling the requirements of 4.3.3.5 and 4.3.3.6 may still arise with some participants in the carriage of dangerous goods. This can in turn still lead to premature activation of the pressure limiting device(s), with all the delays and costs that go with it – and this is exactly what UIC initially set out to remedy.

5. The removal of this ambiguity in the responsibility of the consignor is of particular importance for unaccompanied transport, such as by train or ship.

III. Development since September 2023 Joint Meeting

6. UIC therefore introduced to the sixteenth session of the RID Committee of Experts' standing working group (20-23 November 2023, London) for reconsideration the possibility of making explicit in either Chapter 1.4 or 4.3.3.6 that it is the consignor's obligation to determine the holding time and to ensure that, when empty, uncleaned, tank-wagons and tank-containers for the carriage of refrigerated liquefied gases shall not be offered for carriage unless the pressure has been reduced to a level that ensures that the pressure relief devices will not activate during carriage (see informal document INF.3 from the sixteenth session of the RID Committee of Experts' standing working group).

7. During the discussion in that meeting UIC clarified that:

- Lowering of the pressure of empty, uncleaned tanks has to be done as short as possible before handover for transport;
- The desired clarification of the responsibility of the consignor applies not only to his duties for empty not cleaned tanks, but to loaded tanks as well;

- In case of 4.3.3.5 (actual holding time) and 4.3.3.6 (offering of tanks for carriage) the consignor is responsible for the fulfilment of the whole paragraph, notwithstanding the fact that the task of determining the actual holding time or offering a tank for carriage and of carrying out the required checks in 4.3.3.6 before doing so may be carried out by other actors than the consignor (for example the unloader). This is also clearly stated in RID/ADR/ADN 1.4.2.1.2.
- It is therefore in the consignor's interest to give clear instructions for the different actors along the transport chain of the tank, and it is in that light that EIGA elaborated its guidance document “Methods to prevent the premature activation of relief devices on tanks” (available at www.eiga.eu). Relevant extract from that document, paragraph 4.5.4 Tank Journey, notably underlined text:

"The consignee can only influence certain aspects of the process; the condition of the tank is fixed i.e. the state of the insulation, the condition of the liquid that is being filled, this will typically come from a plant, and will be at a fixed temperature and pressure. What can be influenced by the consignee is that the tank is cooled down correctly and the pressure is lowered prior to the journey commencing.

[...]

When a full tank has been "emptied" and is being prepared for transport the only influence that the consignee can have is to lower the tank pressure as far as possible prior to the journey commencing."

8. Based on informal document INF.3 and the discussion in the standing working group, several delegations expressed their support for including a clarification of the role of the consignor, and they proposed to place that in Chapter 1.4 ‘Safety obligations of the participants’, specifically in 1.4.2.1.1 ‘consignor’, by adding a new reference to the particular obligations he has to fulfil. UIC was asked to present a formal proposal along these lines to the RID/ADR/ADN Joint Meeting.

9. Lastly, the specification for empty, uncleaned tanks and tank-containers should be extended to portable tanks. A proposal to that extent will be submitted to the UN Sub-Committee on the Transport of Dangerous Goods of June-July 2024:

"

- In 4.2.3.7.1, which refers to the actual holding time to be calculated before each journey, add after paragraph (d): “These requirements need not be complied with for empty portable tanks not cleaned.”
- In 4.2.3.8, which says “Portable tanks shall not be offered for transport”, add a paragraph (g): “g) When empty, uncleaned, unless the pressure has been reduced to a level that ensures that the pressure relief devices will not activate during transport.”
- Because a paragraph has been added, a change to (e) and (f) of this sub-section is also necessary: deleting the word “and” at the end of (e) and adding the word “and” at the end of (f).
- The addition “and for refrigerated liquefied gases:” as done in RID/ADR 4.3.3.6 is not necessary for 4.2.3.8, because this paragraph falls under 4.2.3, which is exclusively for refrigerated liquefied gases. Therefore only the addition of (g) is required for the sub-section to be aligned with RID/ADR 4.3.3.5 and 4.3.3.6.”

10. A first discussion on this proposal was held in the Sub-Committee meeting of November/December 2023. If the proposal for portable tanks is approved, the amendment to the Model Regulations will enter into force in 2025. The proposal below is based on the assumption that the requested amendments for portable tanks are approved in June-/July 2024.

IV. Proposal

11. Based on the above, UIC proposes the following to the RID/ADR/ADN Joint Meeting:

Add to 1.4.2.1.1 a new paragraph (f) as follows:

"(f) in the case of tanks carrying refrigerated liquefied gases ensure that the actual holding time is determined or, in the case of empty, uncleaned tanks, ensure that the pressure is sufficiently reduced."

Annex

Details based on discussion about the wording and choice of chapter for the clarification of the role of the consignor, held in the Working Group on Tanks of the Joint Meeting September 2023

1. The Working Group on Tanks did not agree to specify the responsible participant in RID/ADR 4.3.3.6, as proposed by UIC, on the grounds that this was not the right place to specify the responsibilities of the participants.

2. However, since that meeting, UIC has found examples in RID where a specific safety obligation is assigned to a participant in Chapter 4.2. In the chapter dedicated to the use of portable tanks, in paragraph 4.2.1.9.1, RID and ADR not only assign a specific obligation to a participant, but also differ in which participant is responsible for that particular obligation:

- In RID 4.2.1.9.1 it reads:

“Prior to filling, the filler shall ensure that the appropriate portable tank is used and that the portable tank is not filled with substances which in contact with the materials of the shell, gaskets, service equipment and any protective linings, are likely to react dangerously with them to form dangerous products or appreciably weaken these materials. The consignor may need to consult the manufacturer of the substance in conjunction with the competent authority for guidance on the compatibility of the substance with the portable tank materials.”

- While ADR 4.2.1.9.1 reads:

“Prior to filling, the consignor shall ensure [...] these materials. The consignor may need [...] portable tank materials.”

3. The Working Group on Tanks also discussed the option to specify the obligation of the consignor (concerning empty, uncleaned tanks) in 1.4.2.1 ‘Safety obligations of the main participants, consignor’. On the ground that the obligations cited in that chapter are of a general nature, do not contain specific obligations and are not (meant to be) exhaustive, the inclusion of one specific obligation would not fit the purpose of that paragraph.

4. There are examples in Chapter 1.4 that prescribe specific obligations:

- In 1.4.3.7.1, pertaining to the unloader, all-but-one paragraph prescribe specific safety obligations, namely (a), (b),(d), (e) and (f).
- Similarly, out of the eleven safety obligations in 1.4.3.3 (pertaining to the filler), ten are specific actions that shall be done in the context of 1.4.1. Only the note at the end of RID 1.4.3.3 is a general requirement, as it refers to the establishment of procedures to ensure that he fulfils all his obligations.