

## Economic Commission for Europe

### Inland Transport Committee

Working Party on the Transport of Dangerous Goods

8 February 2024

Joint Meeting of the RID Committee of Experts and the  
Working Party on the Transport of Dangerous Goods

Bern, 25-28 March 2024

Item 4 of the provisional agenda:

**Interpretation of RID/ADR/ADN**

### **Siting of pressure-relief devices and of the inlet of safety valves - requirements in accordance with 6.7.3.11.1 and 6.8.3.2.9.4 of RID/ADR**

**Transmitted by the Government of Germany**

#### *Summary*

**Executive summary:** The requirements concerning the siting of pressure-relief devices of tanks are worded differently in Chapters 6.7 and 6.8 of RID/ADR. As a result, the question arises of whether inlets of safety valves must be situated exactly on the top generating line or how close to the top generating line (longitudinal axis) they must be situated. It is proposed that the corresponding wordings be brought in line with each other.

**Action to be taken:** With regard to the siting of the inlet of pressure-relief devices, the requirements set out in 6.8.3.2.9.4 of RID/ADR should be brought in line with the wording in 6.7.3.11.1. The requirement should be interpreted as follows:

The valve inlet of a tank must not be situated more than 30 degrees off either side of the top of the tank. The requirement “in a position as near to the longitudinal and transverse centre of the shell as reasonably practicable” must be observed.

## I. Introduction

1. The requirements concerning the siting of pressure-relief devices of tanks are worded differently in Chapters 6.7 and 6.8 of RID/ADR.

In accordance with 6.7.3.11.1 of RID/ADR “[e]ach pressure-relief device inlet shall be situated on top of the shell as near the longitudinal and transverse centre of the shell as reasonably practicable”.

In accordance with 6.8.3.2.9.4, “[e]ach safety valve inlet shall be situated on top of the shell in a position as near to the transverse centre of the shell as reasonably practicable”.

2. At its last meeting, the group of notified bodies in accordance with Directive 2010/35/EU had a discussion based on the draft in the annex to this document on what consequences result from these different wordings. The wording in 6.8.3.2.9.4 of RID/ADR could be interpreted to mean that the pressure-relief device should be situated exactly on the top generating line or exactly on the longitudinal axis on top of the shell. In practice, the inlet is positioned slightly off the top of the tank. In addition, in accordance with 6.8.3.2.9.5 of RID/ADR “[a]rrangements shall be made to protect the safety valves from damage caused by the tank overturning or striking overhead obstacles. Where possible, safety valves shall not project outside of the profile of the shell.”.

3. Germany is of the opinion that the wording in 6.8.3.2.9.4 of RID/ADR should be brought in line with the wording in 6.7.3.11.1 of RID/ADR.

4. To answer the question of what position meets the requirements in accordance with 6.7.3.11.1 and 6.8.3.2.9.4 of RID/ADR, the provision in 6.10.1.1.1 (b) of RID/ADR can be used. 6.10.1.1.1 of RID/ADR defines a protected area for vacuum-operated waste tanks. It covers the top part of the tank in a zone which extends over a 30° angle on either side of the top generating line. Any safety valve inlet must be situated inside the vapour space under maximum filling conditions, with a maximum offset of 30° to either side measured from the top of the tank.

## II. Proposal

5. Amend the first sentence in 6.8.3.2.9.4 of RID/ADR to read as follows:

“Each pressure-relief device inlet shall be situated on top of the shell in a position as near to the longitudinal and transverse centre of the shell as reasonably practicable.”

6. Moreover, the Joint Meeting is asked to check whether it supports the interpretation set out in paragraph 4 above.

## Annex

<b>TPED NBG 23-035</b>  <b>Rev. 1</b>	<b>DRAFT ADMINISTRATIVE</b>  <b>DECISION</b>	<b>Group of notified bodies on</b> <b>Transportable Pressure</b> <b>Equipment Directive</b>  <b>2010/35/EU</b>
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**Draft – Position of the safety valve inlet in 6.7 and 6.8 RID/ADR – Draft**

<b>Related to:</b>	<p>TPED:</p> <p>RID/ADR: 6.8.3.2.9.4 and RID/ADR 6.7.3.11.1</p> <p>Standards: --</p>
<b>Question:</b>	<p>RID/ADR Chapters 6.8 and 6.7 contain different requirements for the position of the pressure-relief device:</p> <p>RID/ADR 6.7.3.11.1</p> <p>Each pressure-relief device inlet shall be situated in the top of the shell in a position as near to the longitude and transverse centre of the shell as reasonably practicable. [...]</p> <p>In practice, the valve is therefore positioned slightly offset to the top of the tank.</p> <p>RID/ADR 6.8.3.2.9.4 (new text in 2023)</p> <p>Each safety valve inlet <b>shall be situated on the top of the shell</b> in a position as near to the transverse centre of the shell as reasonable practicable. [...]</p> <p>Can both requirements be implemented in the same way?</p>

	<p>There are also further requirements to consider:</p> <p>RID/ADR 6.8.3.2.9.5 (new text in RID/ADR 2023)</p> <p>Arrangements shall be made to protect the safety valve from damage caused by the tank overturning or striking overhead obstacles. [...]</p>	
<b>Answer:</b>	<p>Yes.</p> <p>To fulfil the requirement of RID/ADR 6.8.3.2.9.5, the safety valve does not need to be located on the top of the tank, provided the position of the safety valve is inside the vapour space <b>under maximum filling conditions with a maximum offset of 30° to transverse centre.</b></p> <p><b>The option "as near to the transverse centre" shall be taken into account.</b></p>	
<b>Justification:</b>	RID/ADR 6.10.1.1.1 defines “protected area” as the top part of a tank in a zone over an angle up to 30° of either side of the top.	
<b>Note:</b>	Both protection aims shall be fulfilled.	
<b>TPED NBG</b> <b>2023-11-30</b>	<b>ADCO</b>	<b>Publication</b>

<p><b>TPED NBG 23-035</b></p> <p><b>Rev. 1</b></p> <hr/>	<p><b>DRAFT ADMINISTRATIVE</b></p> <p><b>DECISION</b></p> <hr/>	<p><b>Group of notified bodies on</b> <b>Transportable Pressure</b> <b>Equipment Directive</b></p> <p><b>2010/35/EU</b></p> <hr/>
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