Thermal insulation of tanks (special provision TE 14 in 6.8.4)

Transmitted by the Government of the Russian Federation*

Summary

Executive summary: The purpose of this document is to clarify the wording of special provision TE 14 in 6.8.4, which implies that the thermal insulation must be in direct contact with the shell.

Action to be taken: Clarify special provision TE 14 in 6.8.4 by including the relationship between the temperature of the thermal insulation and that of the structural components of the heating system (where the thermal insulation is not in contact with the shell).

Introduction

1. The current wording of special provision TE 14 in 6.8.4 implies that there is direct contact between the thermal insulation and the shell (indicated in italics):

TE 14 Tanks shall be equipped with thermal insulation. The thermal insulation directly in contact with the shell shall have an ignition temperature at least 50 °C higher than the maximum temperature for which the tank was designed.

* In accordance with the programme of work of the Inland Transport Committee for 2018–2019, (ECE/TRANS/WP.15/237, annex V (9.2)).
** Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2020/31.
2. The proposal is to clarify special provision TE 14 in 6.8.4 by including the relationship between the temperature of the thermal insulation and that of the structural components of the heating system:

Proposals

Proposal 1 (new text in *italics and underlined*):

TE 14 Tanks shall be equipped with thermal insulation. The thermal insulation directly in contact with the shell and/or structural components of the heating system shall have an ignition temperature at least 50 °C higher than the maximum temperature for which the shell and/or the structural component of the heating system was designed.

Justification

3. Special provision TE 14 covers goods with UN No. 3257 (tank code: LGAV). Such goods may currently also be transported in tank-wagons designed for the transportation of liquid tar (UN No. 2810; tank code L10CH or L4BH). The design of tank-wagons for the transportation of liquid tar (UN No. 2810) includes a space between the shell and the thermal insulation to allow air to circulate when the goods are being electrically heated. In that design, the thermal insulation is not in contact with the shell of the tank-wagon.

4. The proposed clarification of special provision TE 14 will allow the use of alternative structures for tank-wagons for the transportation of goods with UN No. 3257.