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Joint Meeting of the RID Safety Committee and the
Working Party on the Transport of Dangerous Goods
(Geneva, 13-23 September 2005)

NEW PROPOSALS OF AMENDMENTS TO RID/ADR/ADN

Chapter 6.8.3; Special requirements applicable to Class 2

**Clarification of the requirements for safety devices of tanks for refrigerated liquefied gases
in paragraphs 6.8.3.2.11/12**

Transmitted by the European Industrial Gases Association (EIGA) */

Introduction

The current ADR/RID gives requirements for the numbers and the capacity of safety valves for tanks for the transport of refrigerated liquefied gases in paragraph 6.8.3.2.11. Furthermore, this paragraph allows replacing one safety valve by a bursting disc which bursts at the test pressure and it defines the capacity of the combination of the pressure relief devices.

Paragraph 6.8.3.2.12 covers the requirements for the design of the safety valves and their set pressure. The given design requirements allows the interpretation that the term “safety valve” implies also bursting discs. In this case, the set pressure of 6.8.3.2.12 would be in contradiction to the set pressure for bursting discs in 6.8.3.2.11. On the other hand there would be no design requirements for bursting discs if the term “safety valves” would not imply bursting discs in paragraph 6.8.3.2.12.

Therefore, EIGA proposes a clear distinction between the requirements for operation of the pressure relief devices in 6.8.3.2.11 and for the design of the pressure relief devices in

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6.8.3.2.12 by moving the requirements for the set pressure of safety valves from 6.8.3.2.12 to 6.8.3.2.11. In this case, it is clear that 6.8.3.2.12 has to be applied for all types of pressure relief devices. Therefore, EIGA proposes to use the more general term “pressure relief device” in this paragraph.

The availability of type approved safety devices for refrigerated liquefied gases is limited on the market with regard to their sizes and capacities. In some cases, it may be necessary to install more than two safety devices to fulfil the requirements in 6.8.3.2.11 for the capacity of the combination of the relief devices. Therefore, EIGA proposes also to consider the requirement for two safety valves in 6.8.3.2.11 as a minimum.

Proposal

6.8.3.2.11 Tanks intended for the carriage of refrigerated liquefied gases shall be equipped with two or more independent safety valves capable of opening at the maximum working pressure indicated on the tank. ~~Each~~ Two of the safety valves shall be individually sized to allow the gases formed by evaporation during normal operation to escape from the tank in such a way that the pressure does not at any time exceed by more than 10% the working pressure indicated on the tank

One of the ~~two~~ safety valves may be replaced by a bursting disc which shall be such as to burst at the test pressure.

In the event of loss of the vacuum in a double-walled tank, or of destruction of 20% of the insulation of a single-walled tank, the combination of the pressure relief devices ~~safety valve and the bursting disc~~ shall permit an outflow such that the pressure in the shell cannot exceed the test pressure.

6.8.3.2.12 The ~~safety valves~~ pressure relief devices of tanks intended for the carriage of refrigerated liquefied gases ~~shall be capable of opening at the working pressure indicated on the tank~~. They shall be so designed as to function faultlessly even at their lowest working temperature. The reliability of their operation at that temperature shall be established and checked either by testing each device ~~valve~~ or by testing a specimen ~~valve~~ of each design-type.

Justification

This proposal will clarify the current confusion over the numbers, the type, the set pressure and the design requirements of safety devices for tanks for the transport of refrigerated liquefied gases.

Safety implications

Increased safety through clarification.

Feasibility

No problems are foreseen.

Enforceability

No problems are foreseen.
