



METHODS TO PREVENT THE PREMATURE ACTIVATION OF RELIEF DEVICES ON TRANSPORT TANKS

Doc 184/25

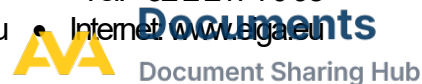
Revision of Doc 184/24

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Amendments from 184/24

Section	Change
2.1	Deleted: "portable tanks and tank containers transported by road"
4.3.2.7	Added a new paragraph under 4.2.3.7 (d) on <i>(ADR only)</i>
4.3.2.7.2	Changes to the paragraph 4.2.3.7.2

Note: Technical changes from the previous edition are underlined

1 Introduction

There have been a number of incidents during transport when the relief valves on tanks for refrigerated liquefied gases have operated. These events have led to delays in shipments and in some cases the involvement of competent authorities for transport. The operation of the relief devices is not a safety issue as they are designed to operate in the event of the pressure exceeding a set value in the tank.

Venting of product during transport can produce noise and a vapour cloud. If this occurs during a rail journey, it can lead to the train being stopped. The journey will only continue after the pressure in the tank has been lowered, usually when a representative of a gas company has attended and lowered the pressure. This results in a delay to the transport and to a possible fine for the shipper.

For UN portable tanks in a port area, the tank is usually moved to a safe area until the pressure can be lowered, once again with a delay in the transport and possible loss of product.

This is usually not an issue when the tank is accompanied, for example, during road transport as the pressure can be controlled by the driver. Thus, the main issue is during transport by rail or sea.

A number of competent authorities have asked EIGA to look at the situation with regard to actual holding times. In the transport regulations, there are two holding times referenced:

- 'Reference holding time'; this is supplied by the manufacturer when the tank is new; and
- 'Actual holding time' which is the expected time within which the relief valves on the tank would not be expected to operate.

2 Scope and purpose

2.1 Scope

This publication applies to tanks for refrigerated liquefied gases (full tanks or empty tanks with residual refrigerated liquid) transported by rail and sea, where the pressure of the tank cannot be controlled during the transport operation, that is, they are unaccompanied. Tank vehicles are excluded from this publication. However, the principle to lower the pressure prior to any form of transport of refrigerated liquefied gases, including empty tanks, may apply to prevent premature operation of the safety devices.

2.2 Purpose

This publication provides shippers with a simple check list that may be used to ascertain the condition of any tank prior to a transport operation commencing, to ensure the 'actual' holding time' is achieved.

Furthermore, this publication gives guidance on how actual holding times can be determined.

3 Definitions

3.1 Publications terminology

3.1.1 Shall

Indicates that the procedure is mandatory. It is used wherever the criterion for conformance to specific recommendations allows no deviation.

3.1.2 Should

Indicates that a procedure is recommended.