

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on the Transport of Dangerous Goods

**Joint Meeting of the RID Safety Committee and the
Working Party on the Transport of Dangerous Goods
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Transmitted by the Government of the Netherlands

Loading and unloading of tank wagons; non-leakproofness of tank wagons

Introduction

In 2003, the Dutch State Traffic Inspectorate (IVW) carried out an investigation on the loading and unloading of tank wagons for the carriage of dangerous goods. The result of this investigation is presented in the attached document (German only).

This investigation was occasioned by the numerous incidents (leakages) involving tank wagons notified in the Netherlands in 2002 and in earlier years. In practice, it appears that in many cases, bottom valves, lateral shut-off devices, screw caps and blank flanges and/or equivalent devices are not leakproof, even though they are closed.

However, 4.3.2.3.3 of RID/ADR prescribes that *tanks* must be closed so that the contents cannot spill out uncontrolled; the leakproofness of the closures must be checked by the filler after the tank is filled.

The leaks discovered revealed that in many cases after filling or emptying, the filling and discharge pipes are not emptied. This means that before the tank wagons are dispatched, the leakproofness of the various closure devices is not checked, and there is an increased risk that the lateral closure devices may no longer be leakproof as a result of a build up of pressure in the filling and discharge pipes.

Steps towards a solution

In our view, apart from a need to ensure more quality in observing the existing requirements of RID/ADR, additional regulation is needed for dangerous goods, e.g.

1. *All* closure devices must be leakproof.
2. After filling, the leakproofness of the equipment and their ability to function must be *suitably checked (by means of a vacuum test or an equivalent method)*.

3. As already required for certain organic peroxides in accordance with 4.3.5, special provision TU 13, there should be a general provision that the service equipment on tanks, such as valves and external piping, must be emptied after the tank has been filled or discharged. (The service equipment may be empty, uncleaned.). In practice, for distribution of fuel (UN 1202, UN 1203 and UN 1223) by road an exception to such a general provision seems to be necessary.
4. The degree of knowledge possessed by fillers also needs to be improved, because correct application of the provisions is important.

Justification

A more precise explanation of what is meant by the leakproofness of closures and the leakproofness test for closures, together with a provision covering the emptying of filling and discharge pipes on tank wagons, will improve safety, prevent pollution to the environment and enable better application of the provisions.
