

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

(Geneva, 1 - 10 September / 13 – 17 October 2003)

Chapter 6.8 – Leakproofness test of tanks

Transmitted by the Government of the Netherlands

Executive summary:	The intention of this proposal is to extend the applicability of the amendment of 6.8.2.4.3 with regard to the test pressure, as proposed by France and adopted by the Joint Meeting in May 2001, to tanks for the carriage of powdery and granular substances.
Action to be taken:	Amend 6.8.2.4.3 of ADR and RID
Relevant documents:	TRANS/WP.15/AC.1/2001/36 (OCTI/RID/GT-III/2001/36)

Introduction:

In document TRANS/WP.15/AC.1/2001/36 (OCTI/RID/GT-III/2001/36) France had pointed out that for tanks for certain liquids the use of water as a medium for the leakproofness test poses problems in many respects. It was also pointed out that in that situation, in general, the test is performed with air, instead of water as the medium for the test. Because of the danger of air under pressure, also a reduced test pressure was proposed. These proposals were adopted by the RID/ADR Joint Meeting in its session of May 2001.

In the Netherlands it is noticed that the same applies to the testing of tanks for the carriage of powdery and granular substances.

Proposal:

Amend the second paragraph of 6.8.2.4.3 as follows:

“For this purpose the tank shall be subjected to an effective pressure at least equal to the maximum working pressure. For tanks intended for the carriage of *liquids and solids in granular or powdery state*, when a gas is used for the leakproofness test it shall be carried out at a pressure at least equal to 25% of the maximum working pressure. In all cases (remainder unchanged).”

As, however, this change influences the third paragraph of 6.8.2.4.2, an amendment of that particular text is also needed.

Proposal:

Amend the third paragraph of 6.8.2.4.2 as follows:

“In the case of tanks intended for the carriage of powdery or granular substances, and with the agreement of the expert approved by the competent authority, the periodic hydraulic pressure test may be omitted and replaced by leakproofness tests at *an effective internal pressure, at least equal to the maximum working pressure*, in accordance with 6.8.2.4.3.

Justification:

For tanks for liquids, it was agreed that the alternative way of testing with gas at a reduced pressure did not affect safety adversely. The Netherlands is of the opinion that this applies equally well to tanks for powdery and granular substances. Only the main reason is different. Due to the low densities of the substance carried, these tanks are usually characterised by a maximum capacity (up to 60.000 liters) and the absence of reinforcement rings. The tank and supports are usually not capable of withstanding the weight of a tank, completely filled with water. In that case special precautions have to be taken to support the tank additionally, prior to filling. The knowledge and experience to support the tank in a safe and adequate way can only be expected to be available at the premises of the manufacturer or a specialised testing center. For the hydraulic test this is inevitable, but for a test for leakproofness, without the need for a check of the construction, nor for an internal examination, the necessity of the use of water is probably even less for tanks for powdery and granular substances than for tanks for liquids.

Safety: the proposed measure will not affect safety or will improve it.

Feasibility: no problems.

Enforceability: no problems.

Economical aspects: positive.
