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Working Party on the Transport of Dangerous Goods
(Bern, 7-11 March 2005)

TANKS

Definitions in sub-section 6.7.2.1

Transmitted by the Government of Belgium */

1. Introduction

- 1.1 During the previous session of the RID/ADR Joint Meeting in September 2004, the German document INF. 9 was briefly discussed. The proposed new wording for the definitions of “*Maximum allowable working pressure*”, “*Design pressure*” and “*Test pressure*” in 6.7.2.1 was not agreed upon, and the representative of Germany was asked to submit a new proposal to the next session (TRANS/WP.15/AC.1/96, point 60).
- 1.2 In order to facilitate the discussion on this topic, the present paper tries to identify the weaknesses in the definitions mentioned above, and suggests a way forward to eliminate the confusion and misunderstandings we experience today.

2. Shortcomings in the existing definitions

The Maximum Allowable Working Pressure (MAWP) depends of the tank strength (its resistance to internal overpressure) and of nothing else. The stronger the tank, the higher its MAWP, irrespective of the substance it contains.

*/ Circulated by the Central Office for International Carriage by Rail (OCTI) under the symbol OCTI/RID/GT-III/2004/30.

What is now defined as the Maximum Allowable Working Pressure is something entirely different : it is the highest internal pressure to which any tank would be exposed in the most disadvantageous circumstances during a given transport operation of a given substance. It depends of the vapour pressure of that substance, the maximum temperature that may occur during transport, the partial pressures of the inert gases being present (if any) and the filling/discharge pressure being applied. *Maximum working pressure* would be a more correct wording for what is defined.

3. Suggested way forward

- 3.1. The definition for the maximum allowable working pressure of a tank should only make use of elements that are proper to the tank itself (design pressure, minimum test pressure).
- 3.2. The existing definition of maximum allowable working pressure could be changed into a definition for maximum working pressure.
- 3.3. It then could be stated that the maximum allowable working pressure has to be equal to, or higher than the maximum working pressure.
