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**COMMITTEE OF EXPERTS ON THE
TRANSPORT OF DANGEROUS GOODS**

**Sub-Committee of Experts on the
Transport of Dangerous Goods**
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agenda item 3 (a))

TRANSPORT IN BULK IN PORTABLE TANKS AND FREIGHT CONTAINERS

Miscellaneous draft amendments to Chapters 4.1 and 6.6

MAWP, design pressure and test pressure of Portable Tanks

Transmitted by the International Union of Railways (IUR/UIC)

The International Union of Railways (UIC) acknowledges the problems outlined by the expert from Argentina in document ST/SG/AC.10/1998/3 dated 22 July 1998 and is of the opinion that the portable tank provisions may be substantially simplified after the reformatting of the UN Recommendations.

Minimum test pressures have now been established for 22 tank types, and for all relevant entries the tank instruction is indicated in the Dangerous Goods List in Chapter 3.2.

The applicable portable tank instruction has been established for every entry in the list on the basis of the Guidelines for assigning portable tank requirements to substances in Classes 3 to 9 (see ST/SG/AC.10/25/Add.2).

The problems outlined by the expert from Argentina might be solved by simplifying the portable tank provisions in the following way.

Proposal

Chapter 6.7 Definitions 6.7.2.1:

Delete the definition of Maximum Allowable Working Pressure (MAWP).

In the definition of "Design pressure", delete the complete text of letter (b) and renumber (c) as (b).

Because in general the Design Pressure (DP) = MAWP + 0.35 and

DP = $0.67 \times$ Test Pressure (TP):

TP = $1.5 \times$ DP = $1.5 \times$ MAWP + 0.525 and

$0.25 \times$ MAWP = $0.165 \times$ TP - 0.0875

Consequently the definition of leakproofness test may be simplified as follows:

Leakproofness test means a test using gas subjecting the shell and its service equipment to an effective internal pressure of not less than 15% of the hydraulic test pressure.

Further simplification can be achieved by replacing MAWP with "Design Pressure" in the following paragraphs: 6.7.2.5.6, 6.7.2.5.10, 6.7.2.8.5 and 6.7.2.20.1.

Similar changes might be useful to simplify the provisions for portable tanks for the transport of non-refrigerated and refrigerated liquefied gases. In this case it would also be useful to replace the maximum allowable working pressures in Tank Instruction T50 by the test pressures, in this case $1.3 \times$ the design pressure.
