

**COMMITTEE OF EXPERTS ON THE TRANSPORT OF
DANGEROUS GOODS AND ON THE GLOBALLY
HARMONIZED SYSTEM OF CLASSIFICATION
AND LABELLING OF CHEMICALS**

Sub-Committee of Experts on the
Transport of Dangerous Goods

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Revision of document ST/SG/AC.10/C.3/2004/54

MISCELLANEOUS PROPOSALS (Chapters 4.1, 6.1, 6.3, 6.5 and 6.6)

Provisions concerning transport operations by all modes of transport

Revision of Part 7.1.1 Application and general provisions,
Addition of loading and stacking provisions

Transmitted by the expert from the United Kingdom

Introduction

1. The expert of the United Kingdom welcomed the efforts of the expert of Australia in document ST/SG/AC.10/C.3/2003/56 to address problems associated with the loading and stacking of IBCs in transport units by proposing text for Part 7 of the Model Regulations, but suggested that the Sub-Committee should take the opportunity to apply a more generic approach to such issues rather than restricting the proposal to IBCs.

2. In INF.38 submitted at the twenty-fourth session, the expert from the United Kingdom proposed to include new text in Chapter 7.1 without seriously disrupting the existing layout and numbering. The Sub-Committee made a number of helpful comments and asked the expert from the United Kingdom to submit a formal proposal at the next session.

3. Since submitting paper 2004/54 a number of helpful suggestions to improve the text have been received. This revised proposal has taken account of many of those suggestions and now makes clear that proposed text only addresses the transport of packaged dangerous goods and unpackaged articles. 'Loading' in the context of transport in portable tanks or bulk containers is properly addressed in other relevant sections of the Model Regulations. Changes to the original text of 2004/54 are highlighted in this Rev.1.

Proposal

In the following proposal existing UN text is in normal case and *new text is shown in italics*.

Replace existing 7.1.1 with the following:

7.1.1 **Application, general provisions and loading requirements for packaged dangerous goods**

- 7.1.1.1 This Chapter contains provisions applicable to dangerous goods transport operations by all modes of transport.
- 7.1.1.2 Packaged ~~D~~dangerous goods shall not be *offered or accepted* for transport, ~~or transported~~, unless;
- (a) *these* goods have been properly classified, packaged, marked and labelled and described and certified on a dangerous goods transport document, and
 - (b) ~~transport units have been appropriately marked, labelled and placarded as appropriate, and~~ described and certified on a transport document; and
 - (c) are ~~otherwise~~ in a fit condition for transport as required by these Regulations, and no dangerous residue of the dangerous goods adheres to the outside of the package.

Packaged dangerous goods shall not be accepted for transport unless:

- (a) transport units have been appropriately marked, labelled and placarded; and
- (b) transport units are otherwise in a condition for transport as required by these Regulations.

- 7.1.1.3 7.1.1.3 Packages containing dangerous goods shall only be loaded in transport units that are strong enough to withstand the shocks and loadings normally encountered during transport, having regard to the conditions to be expected during the anticipated journey. The transport unit shall be constructed in such a way as to prevent the loss of contents during normal conditions of transport, or by changes in temperature, humidity or pressure. Where appropriate the transport unit shall be fitted with devices to facilitate securing ~~of the loads~~ and ~~the~~ handling of the dangerous goods.
- 7.1.1.4 The interior and exterior of a transport units shall be inspected prior to loading to ensure that there is no damage that could affect ~~their~~ its integrity or that of the packages to be loaded in it.
- 7.1.1.5 Transport units shall be loaded so ~~as to ensure that~~ incompatible dangerous or other goods are ~~properly~~ segregated (see in accordance with 7.1.2 this Chapter), ~~and that~~ Specific loading instructions such as orientation arrows, not to be double stacked, keep dry or temperature control requirements are shall be met. Liquid dangerous goods ~~shall~~ should be loaded below dry dangerous goods whenever possible.
- 7.1.1.6 Packages containing dangerous goods and unpackaged articles shall be secured by suitable means capable of restraining the ~~load~~ goods (such as fastening straps, sliding slatboards, adjustable brackets etc) in the transport unit in a manner that will prevent any movement during ~~the journey~~ transport which would change the orientation of the packages or cause them to be damaged. Movement of packages may also be prevented by filling any voids by the use of dunnage or by blocking and bracing. Where restraints such as banding or straps are used, these shall not be over-tightened to cause damage or deformation of the package.

7.1.1.7 *Packages shall not be stacked unless designed for that purpose. Where different design types of packages that have been designed for stacking are to be loaded together, they shall not be stacked with each other unless this can be done without causing damage to the packages. Where necessary, stacked packages shall be prevented from damaging the package below by the use of load-bearing devices.*

7.1.1.7.1.1.8 During loading and unloading, packages containing dangerous goods shall be protected from being damaged. Particular attention shall be paid to the handling of packages during their preparation for transport, the type of transport unit on which they are to be carried and to the method of loading or unloading, so that accidental damage is not caused through dragging or mishandling the packages. ~~The operator and/or loader shall ensure that packages are fit for transport and that no dangerous residue of the goods adheres to the outside of the package.~~ Packages that appear to be leaking or damaged so that the contents may escape shall not be accepted for transport. If a package is found to be damaged so that the contents leak, the damaged package shall not be transported but moved to a safe place in accordance with instructions given by a competent authority, enforcement personnel or a designated responsible person who is familiar with the dangerous goods, the risks involved and ~~knows~~ the measures that should be taken in an emergency.

7.1.1.8.7.1.1.9 ~~During transport, packages and unpackaged articles shall be securely fixed or packed into the transport unit so as to prevent undesired lateral or longitudinal movement or impact likely to cause puncture or other damage and so as to provide adequate external support. [Measures to prevent puncture in accident situations shall also be taken.] (Last sentence at the request of United States of America but not considered necessary by United Kingdom).~~

~~7.1.1.9 — During transport, portable tanks shall be properly secured to the vehicle chassis or frame (see also 6.7.2.2.8).~~

~~[7.1.1.10 — The Competent Authority shall be able carry out controls during transport, such as opening CTUs, to verify compliance with the provisions above.] (Included at the request of Spain although paragraph 17 page 3 Volume 1 of the Orange Book can be said to cover this)].~~

NOTE 1: Additional operational requirements for the transport of packages and IBCs are provided in the special packing provisions for packages and IBCs (see Chapter 4.1).

NOTE 2: Additional guidance on the packing of transport units can be found in the IMO/ILO/UNECE Guidelines for Packing Cargo Transport Units (CTUs) contained in the supplement to the International Maritime Dangerous Goods Code. Modal and National Codes of Practice (such as the Agreement governing the exchange and use of Wagons between Railway Undertakings (RIV 200) Appendix II loading guidelines published by the International Union of Railways (UIC)) or the UK DfT Code of Practice on Safety of Loads on Vehicles) may also be available.