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**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

Thirty-third session
Geneva, 30 June-9 July (a.m) 2008
Item 2 of the provisional agenda

EXPLOSIVES AND RELATED MATTERS

Special packing provisions for goods of Class 1

Transmitted by the expert from Australia*

Background

1. As noted in informal document UN/SCETDG/32/INF.32, the Australian Forum of Explosives Regulators (AFER) identified an issue with section 4.1.5.5 while updating the Australian Explosives Code (AEC) to reflect the 15th revised edition of the UN Recommendations on the Transport of Dangerous Goods, Model Regulations (UN15). The update was intended to harmonise with UN15, but after considering the requirements of section 4.1.5.5 AFER concluded this section was unenforceable in its current form.

* In accordance with the programme of work of the Sub-Committee for 2007-2008 approved by the Committee at its third session (refer to ST/SG/AC.10/C.3/60, para. 100 and ST/SG/AC.10/34, para. 14) (Provisions for the transport of dangerous goods in open cryogenic receptacles)

2. To avoid unnecessary confinement, section 4.1.5.5 precludes the use of metal packagings that have passed PGI tests. However, it does not preclude the use of packagings which have passed the testing requirements of PGII and are constructed to a standard capable of passing the testing requirements for PGI.

3. Unnecessary confinement created by the use of metal packagings increases the risk of a more energetic explosive event if class 1 goods are initiated within the package. As currently worded section 4.1.5.5 does not effectively limit the use of metal packagings to preclude this.

4. The differences in testing requirements for PGI and PGII are as follows:

Packagings (6.1.5)	: Drop height	PGI = 1.8m or (d x 1.5m)
		PGII = 1.2m or (d x 1.0m)
	: Leakproof test	PGI = not less than 30kPa PGII = not less than 20kPa
	: Hydraulic test	PGI = additional 250kPa test
IBC's (6.5.6)	: Drop height	PGI = 1.8m PGII = 1.2m or (d x 1.0m)
	: Topple height	PGI = 1.8m PGII = 1.2m
LP's (6.6.5)	: Drop height	PGI = 1.8m or (d x 1.5m) PGII = 1.2m or (d x 1.0m)

5. Where explosives are carried in solid form the principal difference in testing requirements is drop height. Under these circumstances, very robust packages in common use such as ammunition boxes (see photograph below) may be employed, provided they have been tested to the PGII standard only. This takes no regard of the fact that they may be capable of passing the PGI test requirements.



Image: Common military style ammunition box used for the transport of class 1 goods.

6. The expert from Australia supports the intent of 4.1.5.5, being that packagings must not be constructed to a standard that would pass the requirements of the PGI in order to prevent unnecessary confinement. However, this needs to be explicitly stated.

Proposal

7. Amend section 4.1.5.5 to read:

“Packagings, including IBC’s and large packagings shall conform to the requirements of Chapter 6.1, 6.5 or 6.6, respectively, and shall meet the test requirements of 6.1.5, 6.5.6 or 6.6.5, respectively, for packing group II, subject to 4.1.1.13, 6.1.2.4 and 6.5.1.4.4. To avoid unnecessary confinement, metal packagings meeting the test criteria of packing group I shall not be used. Other packagings meeting the test criteria of packing group I may be used.”
