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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

Twenty-sixth session, 29 November-3 December 2004
Item 4 of the provisional agenda

**NEW PROPOSALS OF AMENDMENT TO THE RECOMMENDATIONS
ON THE TRANSPORT OF DANGEROUS GOODS**

Packaging of pressure receptacles

Transmitted by the International Air Transport Association (IATA)

Background

1. Sections 4.1.6.1.8(e) and 4.1.6.1.9(a) of the UN Model Regulations identify that pressure receptacles and non-refillable pressure receptacles respectively be transported in “an outer packaging”.
2. The use of the term “outer packaging” in this context is a misnomer as an “outer packaging” is defined in Section 1.2.1 as:
“the outer protection of a composite or combination packaging together with any absorbent materials, cushioning and any other components necessary to contain and protect inner receptacles or inner packagings.”
3. By using the term “outer packaging” it implies that the pressure receptacle is an inner packaging. But, the pressure receptacle may be shipped as a completed package provided that the requirements of 4.1.6.1.8(a), (b), (c) or (d) are met.
4. Additionally, the pressure receptacles themselves shall be marked as required by 6.2.2.7 and 6.2.2.8 for UN pressure receptacles and for non-UN pressure receptacles as required by the competent authority in the country of use. If the marking on the pressure receptacle is no longer visible then the “outer packaging” specified in 4.1.6.1.8(e) and 4.1.6.1.9(a) should be treated as an overpack and the requirements of 5.1.2.1 applied.

5. The use of “outer packaging” in this context has generated some confusion on the part of shippers and of airline dangerous goods acceptance personnel as there is now some uncertainty as to whether pressure receptacles prepared in this manner should be treated as a “package” or as an “overpack”.
6. Adding to this uncertainty, in the UN Model Regulations at least, the term “outer packaging” is used within the definition of an overpack in 1.2.1

Proposal

It is proposed that 4.1.6.1.7, 4.1.6.1.8(e) and 4.1.6.1.9(a) be amended as follows:

4.1.6.1.7 Pressure receptacles, including their closures, shall conform to the design, construction, inspection and testing requirements detailed in Chapter 6.2. When ~~outer packagings~~ **an overpack is** are prescribed, the pressure receptacles shall be firmly secured therein. Unless otherwise specified in the detailed packing instructions, one or more ~~inner packagings~~ **pressure receptacles** may be enclosed in an ~~outer packaging~~ **overpack**.

4.1.6.1.8 Valves shall be designed and constructed in such a way that they are inherently able to withstand damage without release of the contents or shall be protected from damage which could cause inadvertent release of the contents of the pressure receptacle, by one of the following methods:

- (a) Valves are placed inside the neck of the pressure receptacle and protected by a threaded plug or cap;
- (b) Valves are protected by caps. Caps shall possess vent-holes of sufficient cross-sectional area to evacuate the gas if leakage occurs at the valves;
- (c) Valves are protected by shrouds or guards;
- (d) Pressure receptacles are transported in frames, (e.g. bundles); or
- (e) Pressure receptacles are transported in an ~~outer packaging~~ **overpack**. The ~~packaging~~ **overpack** as prepared for transport shall be capable of meeting the drop test specified in 6.1.5.3 at the packing group I performance level.

For pressure receptacles with valves as described in (b) and (c), the requirements of ISO 11117:1998 shall be met; for valves with inherent protection, the requirements of annex B of ISO 10297:1999 shall be met.

4.1.6.1.9 Non-refillable pressure receptacles shall:

- (a) be transported in an ~~outer packaging~~ **overpack**, such as a box, or crate, or in shrink-wrapped trays or stretch- wrapped trays;

It is also proposed that the definition of “Overpack” in 1.2.1 be amended as follows:

Overpack means an enclosure used by a single consignor to contain one or more packages and to form one unit for **protection or** convenience of handling and stowage during transport. Examples of overpacks are a number of packages either:

- (a) Placed or stacked on to a load board such as a pallet and secured by strapping, shrink wrapping, stretch wrapping, or other suitable means; or
 - (b) Placed in a ~~protective outer~~ packaging such as a box or crate **for protection**;
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