## 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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Recommendations made by the Sub-Committee on its forty-third, forty-fourth and forty-fifth sessions and pending issues: listing, classification and packing

# Dangerous goods in machinery, apparatus or articles – Comments on ST/SG/AC.10/C.3/2014/102

## Submitted by the expert from The United Kingdom

## Introduction

- 1. In ST/SG/AC.10/C.3/2014/102 the proposed packing instruction for machinery, apparatus and articles containing dangerous goods is P003 with an additional amendment to address machinery, apparatus and articles which cannot be packaged according to the packing instruction.
- 2. Bearing in mind some of the concerns raised by delegates at the forth-fifth session, the United Kingdom expert presents below an alternative packaging instruction for machinery, apparatus and articles containing dangerous goods for consideration by the Sub-Committee. This is a new packing instruction which would be assigned to the proposed new UN entries only.
- 3. Once the principles for the packing instruction have been agreed upon, the Sub-Committee may want to develop a large packing instruction based upon these principles.

## **Proposal**

P00X PACKING INSTRUCTION P00X

This instruction applies to UN Nos.: 35xx, 35xy, 35xz, 35yx, 35yy, 35yz and 35zx

### Packaged machinery, apparatus or articles

Machinery, apparatus or articles containing dangerous goods shall be packaged as follows:

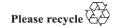
Receptacles within machinery, apparatus or articles:

containing liquids or solids:

- (a) shall be constructed of suitable materials; and
- (b) shall be secured in the article in such a way that, under normal conditions of transport, they cannot break, be punctured or leak their contents into the article itself or the outer packaging.

Receptacles containing liquids with closures shall be packed with their closures correctly oriented

Receptacles that are liable to break or be punctured easily, such as those made of glass, porcelain or stoneware or of certain plastics materials, etc., shall be properly secured. Any leakage of the contents shall not substantially impair the protective properties of the machinery, apparatus, or



article or of the outer packaging.

containing receptacles for gases:

Unless otherwise indicated, only cylinders and pressure drums conforming to the applicable requirements of Chapter 6.2 are authorized.

- (1) The general packing requirements of **4.1.6.1** shall be met.
- (2) The maximum test period for periodic inspection shall be 5 years.
- (3) Cylinders and pressure drums shall be so filled that at 50  $^{\circ}$ C the non-gaseous phase does not exceed 95% of their water capacity and they are not completely filled at 60  $^{\circ}$ C. When filled, the internal pressure at 65  $^{\circ}$ C shall not exceed the test pressure of the cylinders and pressure drums. The vapour pressures and volumetric expansion of all substances in the cylinders and pressure drums shall be taken into account.
- (4) The minimum test pressure shall be in accordance with P200 for the propellant but shall not be less than 20 bar.

## Outer packagings:

Packagings shall meet the provisions of **4.1.1.1**, **4.1.1.2**, **4.1.1.4**, **4.1.1.8** and **4.1.3** and be so designed that they meet the construction requirements of **6.1.4**. The net mass shall be the net of the dangerous goods mass not the net mass of the machinery, apparatus or article. Outer packagings constructed of suitable material and of adequate strength and design in relation to the packaging capacity and its intended use shall be used. Where this packing instruction is used for the transport of machinery, apparatus or articles or inner packagings of combination packagings the packaging shall be designed and constructed to prevent inadvertent discharge of articles during normal conditions of transport.

#### Unpackaged machinery, apparatus or articles

Shall be fixed in cradles, on pallets or other handling devices and shall be carried in accordance with the provisions of 4.1.3.8.1 (a) to (e).