

## 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-seventh session  
Geneva, 4-8 July 2005  
Item 4(b) of the provisional agenda

### PACKAGINGS (INCLUDING IBCS AND LARGE PACKAGINGS)

Comments on ST/SG/AC.10/C.3/2005/15

Review of Chapter 6.3

Transmitted by the expert from the United States of America

#### **Introduction**

1. In ST/SG/AC.10/C.3/2005/15 the expert from the United Kingdom indicates the discrepancy between the text in the ICAO TI and the UN Recommendations with respect to the requirement that infectious substances must be capable of meeting a 95 kPa pressure differential test and be able to withstand temperature extremes. During two previous ICAO Dangerous Goods Panel working group meetings the issue of whether the pressure differential test should be conducted at temperature extremes or ambient temperature was discussed without a clear consensus.

2. The expert from the United States of America does not believe that the pressure differential test needs to be conducted at temperature extremes. Pressure differential testing is typically performed at ambient temperatures. While a relatively few package testing laboratories may interpret that the test needs to be conducted at temperature extremes and are capable of performing the test this way, we believe that this is not the standard practice and not what was intended when the UN text was developed. Conducting the pressure differential test at temperature extremes is unnecessary and not entirely practical (there is no published method that would indicate whether the test would be conducted at the extremes or for instance 5 °C increments ranging from -40 to +55 °C). Infectious substances do not normally have appreciable vapour pressures. Many labs do not have the equipment or capability to perform such tests.

3. The problem arises due to the difference in the ICAO TI text and the UN text in paragraph 3 of the additional requirements in P620 (602 in the TI). We believe that the UN text is correct but should be clarified to avoid future problems with interpretation.

Current ICAO Text: "The primary receptacle or the secondary packaging used for infectious substances must be capable of withstanding, without leakage, an internal pressure which produces a pressure differential of not less than 95 kPa (0.95 bar, 13.8 lb/in<sup>2</sup>) in the range of -40 °C to +55 °C (-40 °F to 130 °F)."

Current UN Text: "Whatever the intended temperature of the consignment, the primary receptacle or the secondary packaging shall be capable of withstanding without leakage an internal pressure producing a pressure differential of not less than 95 kPa and temperatures in the range -40 °C to +55 °C. "

4. The expert from the United States of America proposes to clarify the text in P620 to clearly indicate that it is not necessary to conduct a pressure differential at temperature extremes. We agree with the

expert from the United Kingdom that all packagings should be capable of withstanding temperature extremes that may be experienced during normal conditions of transport but since Chapter 4.1 does not reference these temperatures specifically, we are content leaving the temperature references in P620 at this time.

5. Several general comments with respect to the amendments suggested by the expert from the United Kingdom in ST/SG/AC.10/C.3/2005/15 are provided as follows:

6.3.1.1 – The term infectious substances covers a wide range of materials including clinical wastes and patient specimens. We do not agree with excluding a number of the packagings indicated in 6.3.1.1. We wonder if it is necessary to incorporate this text at all.

6.3.1.2 – The first sentence is unnecessary and can be deleted.

6.3.1.3 – Not all infectious substance packages are triple packs. We do not agree that it is necessary to change “primary receptacle” to “primary inner packaging”. This has been long understood and we see little value in changing this terminology.

6.3.3.1 – We do not agree that the text regarding the marking size is necessary.

6.3.5.1.1 – Instead of stating what packagings do not apply perhaps it would be better to indicate that the testing applies for Category A packagings only. These are the only ones subject to these tests.

Other more detailed comments will be provided to the expert from the United Kingdom directly.

## **Proposal**

6. In P620 replace paragraph 3 with two new paragraphs as follows:

“3. The primary receptacle or secondary packaging shall be capable of withstanding, without leakage, an internal pressure producing a pressure differential of not less than 95 kPa .

4. The primary receptacle and secondary packaging used for infectious substances must be capable of withstanding without leakage temperatures in the range of –40 °C to +55 °C.”

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