

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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PROPOSALS OF AMENDMENTS TO THE RECOMMENDATIONS ON THE TRANSPORT OF DANGEROUS GOODS

Provisions concerning the criteria for passing the vibration test for IBCs Comments on ST/SG/AC.10/C.3/2006/78

Transmitted by the International Confederation of Plastics Packaging Manufacturers (ICPP)

Introduction

1. At its twenty-ninth session the Sub-Committee adopted provisions for a vibration test for IBCs. Based on UN/SCETDG/29/INF 69 which was elaborated in a lunchtime working group, the Sub-Committee adopted as criterion for passing the vibration test “No leakage or rupture shall be observed”.
2. The Sub-Committee furthermore agreed that the sentence “The IBC shall not exhibit any damage liable to affect safety during transport” already put in square brackets in INF 69 shall be removed. The removal of the second phrase (“liable to affect safety during transport”) is in line with the recommendations of the Paris Working Group where this text was criticised for vagueness and diverging interpretations.
3. In ST/SG/AC.10/C.3/2006/78 the expert from Canada proposes to add the following phrase to the adopted pass criterion in 6.5.6.13.4.1: “The IBC shall not exhibit any damage such as, but not limited to, a breakage of structural components or welds, liable to affect the integrity of the IBC during transport.”

Comments to the proposal in document ST/SG/AC.10/C.3/2006/78

4. The proposal of the expert from Canada includes a most technical pass criterion which would be a novelty in comparison with the passing criteria of other design type tests. ICPP asks the Sub-Committee to consider if such detailed approach should be adopted also for further tests as the present case would set a precedent.
5. ICPP is of the opinion that the adopted test conditions of the vibration test do not reflect real transport conditions. This new design type test was introduced to create an additional requirement by definition as a barrier for the innovation scope in the development of IBCs with respect to improved robustness. Consequently the test procedure of the vibration test is comparable, for example, with the definitional provision of the drop height or the stipulated temperature for the cold drop test or the provision

that substances with a density of 1,2 can also be tested with water. ICPP is of the opinion that especially a test with a definitional character requires a clear pass criterion without extreme technical specification.

6. ICPP is convinced that the proposal of the expert from Canada is not appropriate to lead to clear and comparable results in different test houses and would leave ample scope for interpretation. Moreover there would be need for additional test expenditure without a safety benefit.

Justification:

- All welds would have to be tested separately. Depending on the design of a composite IBC this would include between 50 and 600 welds.
- The existing standard measuring methods to detect broken or cracked weldings (e.g. dye penetrant, x-ray or magnetic particle test) are not applicable for profiles lying crossover. Consequently a visual test would be necessary which would lead to subjective results all the more if up to 600 welds have to be checked.
- Even in a case of a visually detected breakage of few welds it is debatable whether these broken welds are “liable to affect the integrity of the IBC during transport”.

Proposal

7. Taking into account the above arguments and the broad consensus of the “vibration test” lunchtime working group during the July session ICPP prefers to maintain the pass criterion for the vibration test unchanged, i.e. “No leakage or rupture shall be observed”.
