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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-first session, 1-10 July 2002  
agenda item 6 (b))

**PACKAGINGS**

**Miscellaneous proposals**

**Multiple use of flexible IBCs**

**Transmitted by the International Council of Chemical Associations (ICCA),  
the International Confederation of Container Reconditioners (ICCR), and  
the International Confederation of Plastics Packaging Manufacturers (ICPP)**

**Background**

1. While it is implicit in the UN Model Regulations (chapter 4.1.1.9) that flexible IBCs may be reused or repaired for the transport of dangerous goods, these practices are not specifically addressed in the Regulation. Moreover, when flexible IBCs are used more than once, certain operations are sometimes performed on the flexible IBC prior to refilling (e.g. replacement of non-integral liners) which are not addressed in the Model Regulations. In some cases these operations may be performed by a party other than the party filling and handing the flexible IBC over for transport or by the original manufacturer of the flexible IBC, and the Model Regulation does not provide that such "third parties" be identified (e.g., through marking) as the party responsible for proper performance of these operations. For these reasons, and in light of the increasing multiple uses of flexible IBCs for the transport of dangerous goods ICPP had proposed in the last biennium to take up this issue into the working programme of the 2001/2002 biennium. The result was that on its twenty-first session "The Committee requested ICPP to consult the other organisations concerned so that a comprehensive proposal for FIBCs could be submitted if the industry effectively wished to introduce provisions in that regard"(ST/SG/AC.10/27, No 141). The above mentioned associations believe it is appropriate that the Model Regulations include basic provisions governing the multiple use of flexible IBCs and the operations that may be performed on flexible IBCs in that connection.

2. The most common operations performed on flexible IBCs intended to be refilled with dangerous goods are the replacement of non-integral components as liners and closure ties, and cleaning. We believe that this practice should be specifically authorized by the Model Regulations. At the same time, in order to ensure that the tested design type of the IBC is preserved, it is considered important to emphasize that

- non-integral components may only be replaced with components meeting the original manufacturer's specifications,
- cleaning operations shall not adversely affect the integrity of the flexible IBC.

Moreover, when non-integral component replacement or cleaning are performed by a "third party", (i.e. a party other than the person filling and handing the IBC over for transport (the "owner"), or by the original manufacturer of the IBC whose UN design type are displayed on the flexible IBC), we believe that the party performing these operations should be identified through marking of the IBC as the party responsible for performing these operations in full accordance with all applicable requirements of the Model Regulations.

3. Apart from replacement of non-integral components of flexible IBCs, in certain cases operations may be performed on integral components (e.g., bodies, handling devices, integral service equipment (see definitions in 6.5.1.2)) of flexible IBCs in order to restore the IBC to conformance with the tested design type. Examples of such operations include heat sealing or gluing of seams, and resealing of flexible IBCs made of coated multifilament yarn. Since such repair operations must be performed in accordance with very specific and carefully executed procedures in order to ensure that the tested design type of the flexible IBC (as identified in the manufacturer's markings applied to the IBC) is preserved, we are of the opinion that repair of flexible IBCs should not generally be permitted. However, where such repair operations are justified, and when the necessary procedures can be implemented to ensure these operations are properly performed, we believe that the Model Regulations should permit such operations under specific conditions as approved by the competent authority.

4. In summary, the Model Regulations should be amended to specifically address the multiple use of flexible IBCs for the transport of dangerous goods, the operations that may be performed on flexible IBCs in this connection, and to provide for the identification (through marking) of "third parties" performing authorized operations on multiple use flexible IBCs. Accordingly, the Sub-Committee is invited to consider the following proposal, which was elaborated by an experts group of the above mentioned associations, on 5th December 2001 in Geneva and on 3rd April 2002 in Brussels.

#### **Proposal**

5. It is proposed that a new 4.1.2.6 be added to read:

"4.1.2.6 Flexible IBCs previously used for the transport of dangerous goods, with the exception of paper flexible IBCs (13M1 and 13M2), may be refilled and handed over for transport provided all applicable requirements of these Regulations are met.

In case that operations on used flexible IBC (13H and 13L) are necessary before refilling the following requirements have to be met:

- a) Flexible IBCs may be cleaned or their non-integral components as non-integral liners and closure ties may be replaced with components conforming to the original manufacturers specification, provided that after these operations the flexible IBC is conform to the design type and is in condition for transport as required by 4.1.1.9.

- b) When flexible IBCs are cleaned or non-integral components are replaced by a party other than the person filling and handing the IBC over for transport, or by the original manufacturer of the IBC whose UN design type markings are displayed on the flexible IBC, the party performing these operations shall durably mark the IBC near the manufacturer's design type marking to show:
- (i) The State in which the operations were carried out;
  - (ii) The name or authorized symbol of the party performing the operations.
- c) Repair operations (any operations on used flexible IBCs other than cleaning and replacement of non-integral components, e.g. stitching, heat sealing, gluing of seams, body or handling devices, or replacement of integral service equipment (see definitions in 6.5.1.2.)) shall not be performed except under conditions approved by the competent authority.”
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