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## COMMITTEE OF EXPERTS ON THE TRANSPORT OF DANGEROUS GOODS

Sub-Committee of Experts on the Transport of Dangerous Goods (Sixteenth session, Geneva, 5-16 July 1999, agenda item 5 (d))

### MISCELLANEOUS DRAFT AMENDMENTS TO THE MODEL REGULATIONS ON THE TRANSPORT OF DANGEROUS GOODS

### **Packagings**

#### **IBCs**

Editorial changes to Chapter 6.5 concerning the terms "Fill" and "Load"

# Transmitted by the International Council of Intermediate Bulk Container Associations (ICIBCA)

#### Introduction

The CEN/ISO Working Group on Package Testing (CEN/TC261/SC1/WG6 ISO/TC122/SC3/WG8), has identified in the existing Chapter 6.5 of the Model Regulations, as amended by the Committee in December 1998, a lack of clarity and potential for misinterpretation as between the use of the terms "fill", "filled" and "filling" on the one hand and "load", "loaded" and "loading" on the other.

For example, the term "load":

in 6.5.1.2 (twice) refers to the mass of contents in a filled IBC; in 6.5.4.6.4 refers to a superimposed mass; also in 6.5.2.1.1. (g) and (h) is used with the two different meanings.

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Most of these discrepancies are in 6.5.4 Test Requirements but proposals are necessary in regard to the whole chapter.

#### **Principles of the proposals**

To clarify the existing text and make interpretation more uniform, it is proposed to use the terms:

"fill", "filled" and "filling" to refer to the contents of an IBC. This is consistent with use in Chapter 6.1 - for example with "packagings shall be filled" in 6.1.5.2.1.

"load", "loaded" and "loading" to refer to superimposed masses and <u>other matters</u> external to the IBC. It is accepted that this varies from use in Chapter 6.7 e.g. 6.7.2.1 for the definition of maximum permissible gross mass; however, portable tanks are not subjected to design type tests involving external loading.

Some additional minor changes are necessary because of the particular nature of flexible IBCs in this context.

#### **Proposals**

1. 6.5.1.2 Definitions:

Amend the definition of *Maximum permissible gross mass* to avoid the term "load" to read:

"Maximum permissible gross mass means the mass of the IBC and any service or structural equipment together with the maximum net mass.

Note: Maximum net mass is defined in 1.2.1. An IBC is regarded as a single packaging and not a combination packaging. (There is no definition of single packaging in the Model Regulations.)

Delete the definition of *Maximum permissible load* 

2. In table 6.5.1.4.1 (a), the top line centre column reads "For solids, loaded or discharged" (amended in ST/SG/AC.10/25/Add 1 for consistency with 6.5.1.4.3, etc), "loaded" should now be changed to "filled".

In table 6.5.1.4.3 change "loaded" to "filled" 18 times.

[Note this is consistent with the use of "filling" in the definition of *Service equipment* in 6.5.1.2.]

- 3. In 6.5.2.1.1 (h) delete "..... or, for flexible IBCs the maximum permissible load, in kg." so that it reads "The maximum permissible gross mass in kg."
- 4. In 6.5.2.2.1 change "Maximum loading/discharge pressure" to "Maximum filling/discharge pressure".

- 5. In 6.5.3.1.1. change "loaded" to "filled" twice.
- 6. In 6.5.3.3.1 change "loaded" to "filled" 4 times.
- 7. In 6.5.3.4.1 change "loaded" to "filled" 4 times.
- 8. In 6.5.3.5.1 change "loaded" to "filled".
- 9. In 6.5.3.6.1 change "loaded" to "filled".
- 10. Reword 6.5.4.4.2 in the bottom lift test as follows:

"The IBC shall be filled. A load shall be added and evenly distributed. The mass of the filled IBC and the load shall be 1.25 times the maximum permissible gross mass."

11. Reword 6.5.4.5.2 in the top lift test as follows:

"Metal, rigid plastics and composite IBCs shall be filled and a load added. The mass of the filled IBC shall be twice the maximum permissible gross mass."

12. Reword 6.5.4.6.2 in the stacking test to read as follows:

"The IBC shall be filled to its maximum permissible gross mass and, if impractible due to the specific gravity of the product being used for testing, additionally loaded so that it is tested at its maximum permissible gross mass."

13. Reword 6.5.4.6.3(b) (i) to read:

"one or more IBCs of the same type filled to the maximum permissible gross mass" [Rest of sentence deleted].

- 14. In 6.5.4.7.1 and 6.5.4.8.1 change "loaded" to "filled".
- 15. 6.5.4.9.2 (b) Amend to read:
  - "(b) Flexible IBCs: the IBC shall be filled to not less than 95% of its capacity <u>and</u> to its permissible gross mass, the contents being evenly distributed."
- 16. Amend 6.5.4.10.2, 6.5.4.11.2 and 6.5.4.12.2 to read "The IBC shall be filled to not less than 95% of capacity and to its maximum permissible gross mass, the contents being evenly distributed."
- 17. Amend the second sentence of 6.5.4.10.3 to end "The IBC shall then be subjected to a uniformly distributed load equivalent to twice the maximum permissible gross mass."
- 18. In 6.5.4.14.3 change "loaded" to "filled".......

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19. As a consequential, it has been noted that sections 6.5.4.4.2, 6.5.4.5.2 and 6.5.4.12.2 relating to testing of filled IBCs are headed "Preparation of IBCs for test", but as only one IBC is ever required for each single test, it is proposed that the 9 headings should be amended to read:

"Preparation of the IBC for test"