

## 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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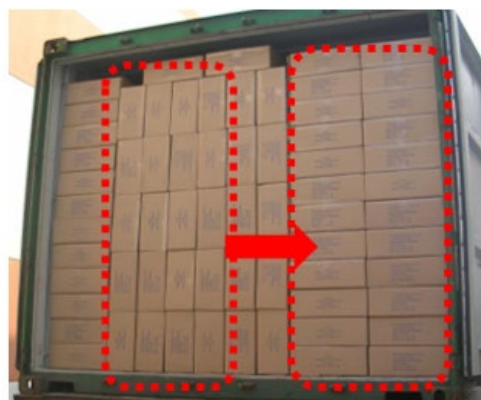
### Miscellaneous proposals for amendments to the Model Regulations on the Transport of Dangerous Goods: Other miscellaneous proposals

## Amendment to 7.1.1.9 of the *Model Regulations* - packages designed for stacking

Transmitted by the expert from the Republic of Korea

### I. Introduction

1. The packages designed for stacking are regulated in 7.1.1.9 of the *Model Regulations*.
2. Additionally, in the case of Intermediate Bulk Containers (IBCs) or Large Packagings (LP) designed for stacking, the stacking load and direction can be identified by the symbol for the maximum permitted stacking load on the packages as specified in paragraphs 6.5.2.2.2 and 6.6.3.3 of the *Model Regulations*.
3. However, the packaging does not have the symbol mentioned above. The direction and load of the stacking for the packaging can only be determined through the stacking test method (... a force applied to the top surface of the test sample ...) specified in 6.1.5.6.2 of the *Model Regulations*.
4. 7.1.1.9 of the *Model Regulations*, which provides general provisions that users typically follow for the stacking of packages, does not include regulations on stacking direction. Consequently, users might mistakenly believe that considering stacking direction is unnecessary for safe loading.
5. As shown in the picture below, if fiberboard boxes (4G) with one side higher than the others are stacked in a direction different from the upright position, the number of stacked packages increases. Consequently, packages stacked in the wrong direction may lead into a higher load than the one specified in the stacking test.



6. Therefore, it is proposed to revise the regulation for the packages designed for stacking as follows.

## II. Proposal

7. Amend 7.1.1.9 of the *Model Regulations* which is about stacking packages, as follows (new text in **underlined**, deleted text in ~~strikethrough~~):

### Option 1

8. To enable users to consider the stacking direction for stacking packages, amend 7.1.1.9 as follows:

“7.1.1.9 Packages shall not be stacked unless designed for that purpose. **When packages are designed for stacking, they shall be stacked in the designed stacking direction, normally on the top surface of packages.** Where different design types of packages that have been designed for stacking are to be loaded together, consideration shall be given to their compatibility for stacking with each other. Where necessary, stacked packages shall be prevented from damaging the package below by the use of load-bearing devices.”

### Option 2

9. To allow users to consider the stacking direction for stacking packages and packages in different stacking directions from the upright can be recognized the top surface, amend as follows:

“7.1.1.9 Packages shall not be stacked unless designed for that purpose. **When packages are designed for stacking, they shall be stacked in the designed stacking direction, normally on the top surface of packages. In cases, where packages are designed to be stacked in a direction different from the standard upright direction, appropriate indication marks such as the orientation arrows in 5.2.1.7 should be applied to the packages.** Where different design types of packages that have been designed for stacking are to be loaded together, consideration shall be given to their compatibility for stacking with each other. Where necessary, stacked packages shall be prevented from damaging the package below by the use of load-bearing devices.”

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