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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****Fifty-fifth session**

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Item 6 (e) of the provisional agenda

**Miscellaneous proposals for amendments to the Model Regulations  
on the Transport of Dangerous Goods: other miscellaneous proposals****Modification to the definition of a large packaging****Transmitted by the expert from Canada\*****Introduction**

1. This document proposes a modification to the definition of a “large packaging” set out in Chapter 1.2 of the Model Regulations.

***Defining large packaging***

2. The definition of a “large packaging” in Chapter 1.2 of the Model Regulations includes the minimum mass and capacity limits that a large packaging must exceed to be qualified as a large packaging. However, the minimum threshold is not a binary one, a large packaging is defined either by the exceedance of 400kg net mass or by the exceedance of 450L capacity. The definition of a large packaging in 1.2.1 is as follows:

*“Large packaging means a packaging consisting of an outer packaging which contains articles or inner packagings and which*

- (a) is designed for mechanical handling; and*
- (b) exceeds 400 kg net mass or 450 litres capacity but has a volume of not more than 3 m<sup>3</sup>;*”

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\* In accordance with the programme of work of the Sub-Committee for 2019-2020 approved by the Committee at its ninth session (see ST/SG/AC.10/C.3/108, paragraph 141 and ST/SG/AC.10/46, paragraph 14).

***Defining combination packaging***

3. Section 1.2.1 also includes the following definition of a “combination packaging”:  

*“Combination packaging means a combination of packagings for transport purposes, consisting of one or more inner packagings secured in an outer packaging in accordance with 4.1.1.5.”*
4. The maximum limits set for a combination packaging’s net mass and capacity are not described with its definition, rather they are set out in Chapter 6.1. Specifically, paragraph 6.1.1.1 sets the maximum net mass limit and the maximum capacity limit for packaging as follows:  

*“(c) Packages whose net mass exceeds 400 kg;*

*(d) Packagings for liquids, other than combination packagings, with a capacity exceeding 450 litres.”*
5. A comparison of the definitions of “combination packaging” and “large packaging” makes evident that a large packaging can be thought of as a bulk combination packaging as it is a combination packaging that exceeds the maximum limits set out in 6.1.1.1.
6. It is collectively understood that the maximum volumetric capacity limit of 450 L set out in 6.1.1.1 applies to packagings for liquids, while the maximum net mass limit of 400 kg applies to packaging for solids. Combination packagings are treated as packagings for solids and are tested and marked as such, even when inner packagings contain liquid.
7. Over the years, various proposals (informal documents INF.5 (twenty-fifth session), INF.19 (thirty-eight session), ST/SG/AC.10/C.3/2011/11, INF.12 (thirty-ninth session), ST/SG/AC.10/C.3/2011/34) have introduced modifications to the maximum limits set out in 6.1.1.1 to clarify the view described in paragraph 6. The resulting modifications have made clear that a combination packaging is not restricted by a maximum capacity of 450 L but rather by a maximum net mass of 400kg. This is clearly described by the exclusion of combination packaging from 6.1.1.1 (d).
8. Without a maximum capacity limit for combination packagings and by an optional minimum net mass or capacity threshold for large packagings, the distinction between the testing and marking requirements of combination packagings and large packagings is unclear and creates unnecessary ambiguity.
9. As an example, a combination packaging consisting of an outer packaging in the shape of a box that weighs less than 400kg but has a capacity of more than 450L could be tested as a box under Chapter 6.1 and be subject to the drop test in five different orientations. However, given that the volume exceeds the lower threshold set out in the definition of a large packaging, this same packaging could also be treated as a large packaging and be subject to the drop test in a single orientation. As a result, by including a minimum volumetric capacity threshold in the definition of large packaging, a packaging that should be certified under Chapter 6.1 could instead be certified under Chapter 6.6 as a large packaging and undergo less stringent testing.
10. Given that a combination packaging is confined only by a maximum net mass limit and not by a maximum capacity limit, by extension, a large packaging should be defined by the exceedance of a minimum net mass threshold and not optionally by a minimum capacity threshold. The minimum capacity limit of 450 L within the definition of a large packaging is unnecessary and creates needless uncertainty. A large packaging should begin where a combination packaging ends, at 400 kg. The proposed modification below creates this clear boundary on the continuum of combination packaging and large packaging.

## Proposal

11. Amend the definition of a large packaging in 1.2.1 to read as follows (deleted text in ~~strikethrough~~):

“Large packaging means a packaging consisting of an outer packaging which contains articles or inner packagings and which

- (a) is designed for mechanical handling; and
  - (b) exceeds 400 kg net mass ~~or 450 litres capacity~~ but has a volume of not more than 3 m<sup>3</sup>.”
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