



Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods**Joint Meeting of the RID Committee of Experts and the
Working Party on the Transport of Dangerous Goods**

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Item 5 (b) of the provisional agenda

Proposals for amendments to RID/ADR/ADN:**New proposals****Definition of maximum capacity****Transmitted by the Government of Belgium*, ******Introduction**

1. RID/ADR/ADN 1.2.1 defines “maximum capacity” as “the maximum inner volume of receptacles or packagings including intermediate bulk containers (IBCs) and large packagings expressed in cubic metres or litres”.
2. “Maximum capacity” appears about 40 times in the text, but “capacity” also appears more than 170 times. About 15 of these occurrences relate to tanks, not packagings.
3. In general, “maximum capacity” is used in the special provisions and packing instructions to define the capacity limits of a packaging used in accordance with Table A. “Maximum capacity” is also used in the packaging requirements of Part 6 generally to define capacity limits for specific types of packaging.
4. “Capacity” is also frequently used in this context, almost always in a turn of phrase with the same meaning (“the capacity must not exceed”, ...).
5. Lastly, “maximum capacity” is used in the test and marking requirements for packaging in Part 6. In this case, it refers to a particular design type of packaging, and the alternative use of “capacity” is also common.
6. In cases relating to a general prescription or a specific packaging (for example, when a filling ratio is defined), “capacity” is generally used on its own. However, the term “capacity” is undefined, which can lead to confusion.

* A/77/6 (Sect. 20), table 20.6.

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Proposals

7. In 1.2.1, amend the definition of “maximum capacity” as follows (deleted wording stricken through):

“~~Maximum~~-Capacity” means “the maximum inner volume of receptacles or packagings including intermediate bulk containers (IBCs) and large packagings expressed in cubic metres or litres”.

8. In 4.1.4.1, in the French version, in the first table of packing instruction P501 (Combination packagings), align the text with the other packing instructions:

Inner packaging *maximum* capacity

9. Align 6.1.5.2.1 with 6.2.2.7.3, 6.2.6.3.1.1, 6.2.6.3.2.3.1, 6.3.5.2.1, 6.5.6.10.2, 6.5.6.11.2 and 6.5.6.12.2 by replacing “maximum capacity” with “capacity”:

“6.1.5.2.1 Tests shall be carried out on packagings prepared as for transport including, with respect to combination packagings, the inner packagings used. Inner or single receptacles or packagings other than bags shall be filled to not less than 98 % of their ~~maximum~~ capacity for liquids or 95 % for solids. Bags shall be filled to the maximum mass at which they may be used. For combination packagings where the inner packaging is designed to carry liquids and solids, separate testing is required for both liquid and solid contents. The substances or articles to be transported in the packagings may be replaced by other substances or articles except where this would invalidate the results of the tests. For solids, when another substance is used it shall have the same physical characteristics (mass, grain size, etc.) as the substance to be carried. It is permissible to use additives, such as bags of lead shot, to achieve the requisite total package mass, so long as they are placed so that the test results are not affected.”

10. Align 6.1.5.8.1 with 6.2.3.9.3, 6.2.3.11.4 and 6.4.21.8 by modifying point 7 (deleted wording stricken through):

“7. ~~Maximum~~-Capacity;”

11. Align 6.3.5.5.1 with 6.2.3.9.3, 6.2.3.11.4 and 6.4.21.8 by modifying point 7 (deleted wording stricken through):

“7. ~~Maximum~~-Capacity;”

12. Align 6.5.6.9.2 with 6.2.2.7.3, 6.2.6.3.1.1, 6.2.6.3.2.3.1, 6.3.5.2.1, 6.5.6.10.2, 6.5.6.11.2 and 6.5.6.12.2 by replacing “maximum capacity” with “capacity” (deleted wording stricken through):

“(a) Metal IBCs: the IBC shall be filled to not less than 95 % of its ~~maximum~~ capacity for solids or 98 % of its ~~maximum~~ capacity for liquids. Pressure-relief devices shall be removed and their apertures plugged, or shall be rendered inoperative;

(b) Flexible IBCs: the IBC shall be filled to the maximum permissible gross mass, the contents being evenly distributed;

(c) Rigid plastics and composite IBCs: the IBC shall be filled to not less than 95 % of its ~~maximum~~ capacity for solids or 98 % of its ~~maximum~~ capacity for liquids. Arrangements provided for pressure relief may be removed and plugged or rendered inoperative. Testing of IBCs shall be carried out when the temperature of the test sample and its contents has been reduced to minus 18 °C or lower. Where test samples of composite IBCs are prepared in this way the conditioning specified in 6.5.6.3.1 may be waived.

Test liquids shall be kept in the liquid state, if necessary by the addition of anti-freeze. This conditioning may be disregarded if the materials in question are of sufficient ductility and tensile strength at low temperatures;

(d) Fibreboard and wooden IBCs: The IBC shall be filled to not less than 95 % of its capacity.”

13. Align 6.5.6.14.1 with 6.2.3.9.3, 6.2.3.11.4 and 6.4.21.8 by modifying point 7 (deleted wording stricken through):

“7. ~~Maximum~~-Capacity;”

14. Align 6.5.5.1.9 (a) with 6.2.2.7.3, 6.2.6.3.1.1, 6.2.6.3.2.3.1, 6.3.5.2.1, 6.5.6.10.2, 6.5.6.11.2 and 6.5.6.12.2 by replacing “maximum capacity” with “capacity” (deleted wording stricken through):

“(a) The test substance used in performing the tests shall be water, and the large salvage packagings shall be filled to not less than 98 % of their ~~maximum~~-capacity. It is permissible to use additives, such as bags of lead shot, to achieve the requisite total package mass so long as they are placed so that the test results are not affected. Alternatively, in performing the drop test, the drop height may be varied in accordance with 6.6.5.3.4.4.2 (b);”

15. Align 6.6.5.2.1 with 6.2.2.7.3, 6.2.6.3.1.1, 6.2.6.3.2.3.1, 6.3.5.2.1, 6.5.6.10.2, 6.5.6.11.2 and 6.5.6.12.2 by replacing “maximum capacity” with “capacity” (deleted wording stricken through):

“Tests shall be carried out on large packagings prepared as for carriage including the inner packagings or articles used. Inner or single receptacles or packagings other than bags shall be filled to not less than 98 % of their ~~maximum~~-capacity for liquids or 95 % for solids. For large packagings where the inner packagings are designed to carry liquids and solids, separate testing is required for both liquid and solid contents. The substances in the inner packagings or the articles to be carried in the large packagings may be replaced by other material or articles except where this would invalidate the results of the tests. When other inner packagings or articles are used they shall have the same physical characteristics (mass, etc) as the inner packagings or articles to be carried. It is permissible to use additives, such as bags of lead shot, to achieve the requisite total package mass, so long as they are placed so that the test results are not affected.”

16. Align 6.6.5.4.2 with 6.2.3.9.3, 6.2.3.11.4 and 6.4.21.8 by modifying point 7 (deleted wording stricken through):

“7. ~~Maximum~~-Capacity/maximum permissible gross mass;”

Justification

17. The definition of “capacity” explicitly states that it refers to “maximum internal volume”. There is therefore no need to expect any problems of interpretation. On the other hand, the proposed amendments make it possible to standardize usage and clearly distinguish between general limits linked to the use of Table A on the one hand and the general requirements or the capacity of a particular packaging on the other.