

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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Item 4 of the provisional agenda

Electric storage systems

Amendments to Section 38.3

Note by the secretariat

1. Reference is made to the amendments to the 5th revised edition of the Manual of Tests and Criteria adopted in December 2010 (ST/SG/AC.10/38/Add.2) as regards lithium batteries.

2. These amendments include the insertion of a new 38.3.2.1 and of a new Note in 38.3.2.2 as follows:

"38.3.2.1 All cell types shall be subjected to tests T.1 to T.6 and T.8. All non-rechargeable battery types, including those composed of previously tested cells, shall be subjected to tests T.1 to T.5. All rechargeable battery types, including those composed of previously tested cells, shall be subjected to tests T.1 to T.5 and T.7. In addition, rechargeable single cell batteries with overcharge protection shall be subjected to test T.7. A component cell that is not transported separately from the battery it is part of needs only to be tested according to tests T.6 and T.8. A component cell that is transported separately from the battery shall be tested as a cell."

38.3.2.2 Note:

"NOTE: Batteries are subject to the tests required by special provisions 188 and 230 of Chapter 3.3 of the Model Regulations irrespective of whether the cells of which they are composed have been so tested."

3. This new Note in 38.3.2.2 seems to be redundant with the second and third sentences of 38.3.2.1. The Sub-Committee may wish to indicate if this Note is needed or could be deleted.

4. A new definition was added for "Nominal energy in watt-hours". This new definition and the existing definition of "Watt-hour rating" seem to overlap. Moreover, in the French text, the terms used for translating "nominal energy in watt-hours" and "Watt-hour rating" are the same. The Sub-Committee may wish to indicate if the definitions are both needed.

"Nominal energy in watt-hours means the energy value of a cell or battery determined under specified conditions and declared by the manufacturer. The nominal energy is calculated by multiplying nominal voltage by rated capacity."

"Watt-hour rating, expressed in Watt-hours, is calculated by multiplying a cell's or battery's rated capacity, in ampere-hours, by its nominal voltage."

5. In 38.3.4.3.2, the last paragraph was amended as follows:

"The logarithmic frequency sweep shall differ for cells and batteries up to 12 kg (cells and small batteries), and for batteries 12 kg and greater (large batteries)...".

6. The values given are not consistent with the definitions of small and large batteries.
7. The secretariat proposes the following correction:

Proposal:

Replace "for cells and batteries up to 12 kg (cells and small batteries), and for batteries 12 kg and greater (large batteries)" with "for cells and batteries with a gross mass of not more than 12 kg (cells and small batteries), and for batteries with a gross mass of more than 12 kg (large batteries)".

8. An alternative may be to use only the terms cells, small batteries and large batteries as these terms are already defined in 38.3.2.3.
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