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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

Fortieth session
Geneva, 28 November – 7 December 2011
Item 3 (e) of the provisional agenda
Electric storage systems: miscellaneous

Lithium battery mark

Transmitted by the expert from the United States of America[1]

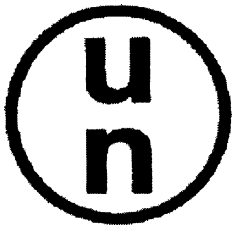
Background

1. At its thirty-eighth session, the Sub-Committee considered a document from France (ST/SG/AC.10/C.3/2010/80) in relation to a quality management programme for the manufacture of lithium cells and batteries. In response to this proposal, the United States submitted an informal document INF.21 supporting France's proposal and in addition proposing that the Sub-Committee consider (1) requiring retention of test documentation verifying battery designs have successfully passed the required design-type tests, and (2) requiring application of a mark on the battery to indicate that the battery design has successfully passed the applicable design-type tests. Based on the discussions resulting from the informal document INF.21, the Sub-Committee adopted a requirement to retain test documentation and agreed to further consider a mark during the present biennium (see ST/SG/AC.10/C.3/76 para. 50).

2. At the thirty-ninth session, as a follow-up to the discussions surrounding informal document INF.21, the Sub-Committee considered an informal document from the United States (informal document INF.45) inviting the Sub-Committee consider the benefits of requiring a visible mark to appear on the outside case of each lithium ion or metal cell or battery. This mark would be the manufacturer's certification that the battery design has successfully passed the required design type tests in a readily recognizable manner. It was suggested in informal document INF.21 that the "UN" symbol be considered as a possible

[1] In accordance with the programme of work of the Sub-Committee for 2011-2012 approved by the Committee at its fifth session (refer to ST/SG/AC.10/C.3/76, para. 116 and ST/SG/AC.10/38, para. 16).

mark to indicate the battery design has successfully passed the required design type tests in a readily recognizable manner.



3. As noted in the report for the thirty-ninth session (ST/SG/AC.10/C.3/78), a number of experts expressed support for the idea of a mark indicating that batteries were tested for transport. However, some experts voiced concern regarding the appropriateness of the "UN" marking as the authorized mark to indicate battery design has successfully passed the required design type tests in the required manner. Specifically, there was some concern that the marking "UN" may imply that the batteries were tested under the auspices of the competent authority, while the testing is actually performed under the responsibility of the manufacturer. However, others indicated that use of the UN symbol may be preferable as there is widespread recognition of the symbol and its relationship to the UN Model Regulations, and its meaning for lithium batteries could be specifically identified in the Regulations to be the manufacturer's certification.

4. Based on the previous dialogue on the subject, the Sub-Committee is invited to take a decision in principle that a mark indicating that the battery design has successfully passed the required design type tests in a readily recognizable manner is considered beneficial. If it is agreed that a mark would be beneficial, the Sub-Committee is further invited to discuss whether the "UN" marking is appropriate or whether another mark would be preferred – an example of an alternative mark employing the letters "UT" is provided for consideration.

5. It is recognized that a mark may not be appropriate for all lithium batteries – for example those not required to conform to a tested design type and those of such a small size that a marking is not feasible. To address this issue, an exception for batteries not required to conform to a tested design type and for certain small lithium batteries is provided. With respect to implementation, it is suggested that the mark apply to batteries manufactured after 1 January 2016 – one year following modal implementation of the provisions of the eighteenth revised edition of the UN Model Regulations.

Proposal

Option 1

6. Add the following as a new 2.9.4(b) and renumber the subsequent paragraphs accordingly:

"2.9.4 Lithium batteries

…

(b) Each battery manufactured after 31 December 2015 (including single cell batteries) shall be legibly and durably marked with the following mark:

The mark is the manufacturer's certification that the battery is of a type proven to meet the test requirements of the Manual of Tests and Criteria, Part III, sub-section 38.3. This mark is not required on batteries of such a size that the mark would not be legible or to batteries not required to be of a type proven to meet the test requirements of the Manual of Tests and Criteria, Part III, sub-section 38.3.".

Option 2

7. Add the following as a new 2.9.4(b) and renumber the subsequent paragraphs accordingly:

"2.9.4 Lithium batteries

…

(b) Each battery manufactured after 31 December 2015 (including single cell batteries) shall be marked with the following mark:

UT

The mark is the manufacturer's certification that the battery is of a type proven to meet the test requirements of the Manual of Tests and Criteria, Part III, sub-section 38.3. This mark is not required on batteries of such a size that the mark would not be legible or to batteries not required to be of a type proven to meet the test requirements of the Manual of Tests and Criteria, Part III, sub-section 38.3.".