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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

Thirty-sixth session  
Geneva, 30 November – 9 December 2009  
Item 4 of the provisional agenda

**ELECTRIC STORAGE SYSTEMS**

Amendment of Special Provision 240

Transmitted by the expert from Germany<sup>1</sup>

**Introduction**

1. At the last session of the Sub-Committee, the expert from Germany indicated in informal document INF.23/Rev.1 that there were problems regarding the classification under UN Nos. 3171, 3091, and 3481. The reasons for this indication were inquiries about how to classify so-called E-Bikes which are powered by lithium batteries. Based on Special Provision 240, which particularly includes mobility aids among equipment, a classification under UN 3171 BATTERY-POWERED EQUIPMENT seems obvious, with the result that E-Bikes (as mobility aids) are exempted as regards land and maritime transport. On the other hand, the question arises whether UN Nos. 3091 and 3481 would not be the more specific entries. The experts of the Sub-Committee expressed different views on how to classify E-Bikes but agreed that the existing provisions on this issue are ambiguous and need clarification.

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<sup>1</sup> In accordance with the programme of work of the Sub-Committee for 2009-2010 approved by the Committee at its fourth session (refer to ST/SG/AC.10/C.3/68, para. 118 (c) and ST/SG/AC.10/36, para. 14).

2. As a separate, specific regime has been created for lithium batteries by creating UN Nos. for this battery type (3090, 3091, 3480 and 3481), Special Provision 240 should be amended in such a way that only equipment containing wet batteries and sodium batteries is assigned to UN No. 3171. As a consequence, all equipment containing lithium or lithium ion batteries – including mobility aids such as E-Bikes – is to be classified under UN 3091 or 3481, as appropriate. Within the framework of Special Provision 188 and under the conditions specified therein, they are exempted from the provisions. Other exemptions result from mode-specific provisions. For example, ADR/RID contain general exemptions related to the carriage by private individuals or the carriage undertaken by enterprises which is ancillary to their main activity in specified quantities (1.1.3.1 (a) and 1.1.3.1 (c) of ADR/RID) which will be relevant to numerous transport operations involving equipment containing lithium batteries; there are also specific exemptions related to the carriage of lithium batteries (1.1.3.7 of ADR). This document therefore does not contain proposals for further exceptions. If the discussions in the Sub-Committee indicate that there is a need for exemptions for multi-modal carriage, this could be discussed on the basis of a separate proposal. In such a case, the industry and trade sectors would have to demonstrate the respective need.

3. For vehicles which are powered both by an internal combustion engine and lithium ion or lithium metal batteries the classification under UN 3166 continues to be appropriate.

### Proposal

4. Amend SP 240 to read as follows:

“This entry only applies to vehicles and equipment powered by wet batteries and sodium batteries ~~or lithium batteries~~ and transported with these batteries installed. Examples of such vehicles and equipment are electrically-powered cars, lawnmowers, wheelchairs or other mobility aids. Hybrid electric vehicles powered by both an internal combustion engine and wet batteries, sodium batteries ~~or lithium batteries~~, lithium metal batteries or lithium ion batteries, transported with the battery(ies) installed shall be consigned under the entries UN 3166 VEHICLE, FLAMMABLE GAS POWERED or UN 3166 VEHICLE, FLAMMABLE LIQUID POWERED, as appropriate. Vehicles which contain a fuel cell shall be consigned under the entries UN 3166 VEHICLE, FUEL CELL, FLAMMABLE GAS POWERED or UN 3166 VEHICLE, FUEL CELL, FLAMMABLE LIQUID POWERED, as appropriate. Equipment which contains lithium metal batteries or lithium ion batteries shall be consigned under the entries UN 3091 LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT or UN 3481 LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, as appropriate.”

5. Consequently, in SP 312 the words “or lithium batteries” should be replaced with “lithium metal batteries or lithium ion batteries” (twice).

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