



**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-seventh session**

Geneva, 21–30 June 2010

Item 4 of the provisional agenda

Electric storage systems**Battery-powered vehicles****Transmitted by the US Fuel Cell Council (USFCC)¹****Introduction**

1. During the thirty-sixth session of the Sub-Committee, it was proposed in informal document INF.57 to remove some types of vehicles, such as motorcycles, bicycles, and specialty vehicles, from UN 3171 and put them in UN 3091 LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT or LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT or UN 3481 LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT or LITHIUM ION BATTERIES PACKED WITH EQUIPMENT if they contained lithium or lithium ion batteries. The Sub-Committee agreed to the following text proposed by a working group for Special Provision 240 but, it was felt further discussion would be needed at the thirty-seventh session for clarification in particular of the meaning of the terms “vehicle” and “equipment” regarding the protection provided by the vehicle and the equipment to the batteries installed or contained. The following text was agreed, in square brackets:

“[240 This entry only applies to vehicles powered by wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries and equipment powered by wet batteries or sodium batteries transported with these batteries installed. Examples of such vehicles are electrically-powered cars. Examples of such equipment powered by sodium or wet batteries are [motorcycles, scooters, E-bikes], lawnmowers, wheelchairs or other mobility aids. Equipment powered by lithium

¹ 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 (d) and ST/SG/AC.10/36, para. 14).

metal batteries or lithium ion batteries shall be consigned under the entries UN 3091 LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT or UN 3091 LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT or UN 3481 LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT or UN 3481 LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, as appropriate. Hybrid electric vehicles powered by both an internal combustion engine and wet batteries, sodium 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.]” (see ST/SG/AC.10/C.3/72, annex I).

2. It was additionally proposed to leave some types of vehicles such as cars in UN 3171 if they contained lithium or lithium ion batteries. Moving some types of vehicles, such as motorcycles, bicycles, and specialty vehicles out of UN 3171 is bound to be confusing to users, since vehicles are normally expected to be any type of vehicle, not just cars. The definition of “vehicle” from the United Nations Model Regulations is:

“Vehicle means road vehicle (including an articulated vehicle, i.e. tractor and semi-trailer combination), railroad car or railway wagon. Each trailer shall be considered as a separate vehicle.”.

3. This definition clearly includes motorcycles, bicycles and specialty vehicles such as three-wheeled service scooters, road-legal agricultural implements, golf carts and other such specialty vehicles and the like since they are road vehicles. Requiring the user to determine “vehicle” to mean just cars is bound to be confusing and apt to lead to misclassifications. Such misclassifications might lead to vehicles with a fuel tank being misclassified as batteries contained in equipment, which would be detrimental to safety.

Proposal

4. Amend Special Provision 240 to read as follows:

This entry only applies to vehicles powered by wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries and equipment powered by wet batteries or sodium batteries transported with these batteries installed. Examples of such vehicles are electrically-powered cars, lawnmowers, scooters, E-Bikes, motorcycles, wheelchairs, and other mobility aids. When vehicles are shipped with the batteries installed, the vehicle shall be packed in strong outer packagings constructed of suitable material of adequate strength and design in relation to the packaging's capacity and its intended use unless the battery is afforded equivalent protection by the vehicle in which it is installed. Equipment powered by lithium metal batteries or lithium ion batteries shall be consigned under the entries UN 3091 LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT or UN 3091 LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT or UN 3481 LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT or UN 3481 LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, as appropriate. Hybrid electric vehicles powered by both an internal combustion engine and wet batteries, sodium 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.”
