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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

#### Sixty-fourth session

Geneva, 24 June-3 July 2024

Item 4 (f) of the provisional agenda

**Electrical storage systems:**

**Miscellaneous**

### Lithium cells and batteries, classification, and identification

Transmitted by expert from the United Kingdom\*

## I. Introduction

1. In 2016 the International Civil Aviation Organization raised concerns that the existing UN lithium battery entries did not provide sufficient granularity and advised the Sub-Committee of Experts on the Transport of Dangerous Goods that they had commissioned the Society of Automotive Engineers (SAE) to develop a packaging standard to potentially allow certain lithium batteries to be carried by air. At the same time, they invited the Sub-Committee to look at providing some granularity to the lithium battery entries. The Sub-Committee determined that this aim might be achieved through classification. Progress of both the initiatives was delayed by the COVID-19 pandemic, however this session of the Sub-Committee will see proposals from the informal working group (IWG) in respect of classification and later this year the SAE will publish their standard after a final ballot.

2. Experts from the United Kingdom have been involved with both initiatives throughout their existence and are thus well placed to take an overview of the progress. The SAE standard has a much-restricted scope than originally intended as it will only cover cylindrical cells up to type 21700, whilst the IWG classification paper provides a basis for some granularity but is curtailed by the remit afforded to it by the Sub-Committee from truly addressing granularity.

## II. Proposal

3. In paragraph 2 of the Recommendations on the Transport of Dangerous Goods, the Sub-Committee is reminded of the following sentence: “Furthermore, the new structure, format and content should be followed to the greatest extent possible in order to create a more user-friendly approach, to facilitate the work of enforcement bodies and to reduce the administrative burden”. Despite this, it is the United Kingdom expert’s opinion that this has unfortunately been overlooked in successive amendments to the text involving lithium

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\* A/78/6 (Sect. 20), table 20.5.



batteries, such that a situation now exists where the treatment of lithium batteries is completely atypical to the rest of the substances and articles within the *Model Regulations*. (The expert will provide an informal document in due course to illustrate this point in detail).

4. The proposals from the United Kingdom will use the new classification system of the IWG as a starting point from which to reformat all the existing lithium battery text so that it aligns with the practice for all other substances and articles within the *Model Regulations*. The objective would be user friendliness provided for by greater granularity, achieved through an appropriate number of new UN entries, each of which will only have one packing instruction and no more than two or, at most, three special provisions. Furthermore, items shall be labelled such that carriers have the information to make meaningful decisions on the volume and location of packages in carriage. In addition, because the changes are based on the proposed new classification system, which will require additional testing of cells and batteries, they can be incorporated into the *Model Regulations* without making any amendments to the existing UN entries and associated provisions. Indeed, no transition periods will be required as older and untested cells and batteries will default to the existing entries and special provisions.

5. As indicated above, this working document will be supported by additional informal documents providing the detail of these proposals. These will cover, at least, the dangerous goods list, packing instructions, other consequential amendments (such as labelling) and, for information only, previous decisions taken by the Sub-Committee that support the principles of these proposals, as well as the reasoning behind various aspects of the proposals.

### **III. Justification**

6. These proposals will provide the modal regulators with the granularity they desire and has support from United Kingdom industry. This granularity, leading to, among other things, new, specific labelling, marking, and packaging provisions, will facilitate the carriage of lithium cells and batteries as bans and restrictions become more specific, rather than the blanket restrictions that currently exist. Safety in transit can be improved as segregation can be applied and mistakes more readily identified, which would also mitigate the environmental impact of an incident.

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