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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-fourth session  
Geneva, 1-9 December 2008  
Item 4 of the provisional agenda

**LISTING, CLASSIFICATION AND PACKING**

Exception from marking requirement for lithium button cell batteries

Transmitted by the Portable Rechargeable Battery Association (PRBA) and the International Association for the Promotion and Management of Portable Rechargeable Batteries through their life cycle (RECHARGE)<sup>1</sup>

**Introduction**

1 At the thirtieth session of the Sub-Committee, significant changes were made to Special Provision 188 of the UN Model Regulations. These included a marking requirement for shipments of all lithium batteries, including lithium batteries packed with or contained (installed) in equipment. Prior to these changes, Special Provision 188 did not require shipments of lithium batteries contained in equipment to carry a marking on packaging to identify the presence of lithium ion batteries or lithium metal batteries.

2. As a result of these new regulations and marking requirement, an issue has arisen regarding how the new marking requirement applies to small button cell batteries that are installed in equipment or on circuit boards that, in turn, are contained in many types of electrical

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<sup>1</sup> In accordance with the programme of work of the Sub-Committee for 2007-2008 approved by the Committee at its third session (refer to ST/SG/AC.10/C.3/60, para. 100 and ST/SG/AC.10/34, para. 14).

and electronic equipment. Such equipment includes cellular phones, computers, MP3 players, printers, cordless phones, watches, calculators, etc. In many cases, shippers of these products are not aware that these small button cell batteries are contained in the equipment they are shipping.

### **Types of button cell batteries**

3. Below are examples of lithium button cell batteries on the market today. The actual weight of these button cell batteries ranges from 0.08 g to 10.5 g. The amount of lithium metal or equivalent lithium content ranges from 0.0002 g to 0.26 g. These button cell batteries present virtually no risk in transportation when contained in equipment.

<u>Primary (non-rechargeable)</u>	<u>Secondary (rechargeable)</u>
Lithium-Manganese dioxide	Lithium ion
Lithium-Carbon mono-fluoride	Lithium-Manganese dioxide
	Lithium-Vanadium oxide
	Lithium-Niobium oxide
	Lithium-manganese titanium

### **Lithium Battery Marking Requirement**

4. In situations where portable electronic is shipped packed with a lithium ion battery as its primary source of power, it historically has been understood that the marking requirement applies to the lithium ion battery rather than any very small button cell battery that may be installed in the equipment. This avoids the confusion of marking the packaging as containing both a lithium metal battery and a lithium ion battery and ensures emergency responders take the necessary precautions to address the actual risk in transportation.

5. Where a small button cell battery is installed in equipment or on a circuit board it makes little sense to mark the package as containing a lithium battery. A single button cell in equipment presents virtually no risk in transportation. As noted earlier, the shipper of this equipment may not be aware of the lithium button cell battery nor will the shipper know the type of button cell (lithium metal or lithium ion) that is in the equipment. Watches and calculators are good examples of these types of equipment.

### **Proposal**

6. In order to address this matter and clarify the marking requirements for lithium batteries, PRBA and RECHARGE propose to add the following sentence after paragraph (f) (iv) in Special Provision 188:

“The requirement in paragraph (f) does not apply to button cell batteries contained in equipment and on circuit boards.”.

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