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

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Item 3 of the provisional agenda

LISTING, CLASSIFICATION AND PACKING

Maintain classification of UN 3090 and 3091, Lithium Metal Batteries

Transmitted by RECHARGE on behalf of the Portable Rechargeable Battery Association (PRBA), RECHARGE, the European Rechargeable Battery Association, Battery Association of Japan (BAJ), the National Electrical Manufacturers Association (NEMA), and European Portable Battery Association (EPBA)

1. The European Portable Battery Association (EPBA), the European Rechargeable Battery Association (RECHARGE), the Portable Rechargeable Battery Association (PRBA), the National Electrical Manufacturers Association (NEMA), and the Battery Association of Japan (BAJ) have considered the arguments transmitted by the International Federation of Air Line Pilots Associations (IFALPA) in its proposal for a reclassification of Lithium Metal Batteries UN3090 and UN3091.

2. Members of EPBA, RECHARGE, PRBA, NEMA and BAJ represent more than 90% of the world's manufacturers of lithium batteries in general and also of lithium-metal based batteries.

3. The first priority of this industry remains the safe transport of lithium-metal based batteries by all modes of transport. Despite recent incidents originated in the mishandling or non conform packaging of lithium-based batteries, Industry's experience confirms that the shipment of lithium-based batteries under Class 9 remains the best option for controlling the hazard originated in the transportation of those batteries.

4. The alternative proposal of IFALPA under the document ST/SG/AC.10/C.3/2007/43 for amending the UN Model Regulations applicable to lithium-metal batteries is not justified – neither on technical basis nor in the current context of international regulatory activity on the transportation of Lithium-based and Lithium-Ion batteries.

5. The International Civil Aviation Organization (ICAO) Dangerous Good Panel (DGP) on November 9 completed two weeks of work amending the 2009-2010 ICAO Technical Instructions on the Transport of Dangerous Goods by Air. The DGP adopted several proposals

submitted by the battery industry. It also rejected several proposals submitted by the International Federation of Air Line Pilots Association (IFALPA) and the U.S. Department of Transportation (DOT). The changes to the lithium ion battery and lithium metal battery provisions in the ICAO Technical Instructions are significant and will reinforce the overall safety for the transportation of those batteries.

6. On a technical level, the lithium-based batteries that are considered as finished products or articles do not allow any exposure to their lithium content as manufacturing standards require manufacturers to seal each battery and to test those batteries according to safety measures such as the drop test or the nail perforation test. Furthermore, lithium metal batteries do not meet the requirements of Class 4.3, Flammable Solids, because they do not fail UN Manual of Tests and Criteria, 33.4.1, Substances which in contact with water emit flammable gases. This test clearly says that the product to be tested should be tested in its "commercial form". These regulations consider Class 9 to be substances and articles that during transport present a danger not covered by other classes. The UN's own definition clearly places lithium batteries into Class 9.

7. The major risk occurring from the transportation of lithium-based batteries remains the short-circuit that would lead to an instantaneous release of the battery energy content. Except for the 1999 incident at Los Angeles International Airport (LAX) cited by IFALPA, there has never been an air, sea or ground transportation issue involving lithium metal batteries packaged by a battery manufacturer. In the FAA testing cited by IFALPA, the effects of packaging material were largely ignored. Lithium metal batteries were largely tested unpacked by FAA whereas batteries are transported packaged. Consequently, Industry does not believe that it is necessary to reclassify lithium-metal batteries in the UN Model Regulations as proposed by IFALPA in ST/SG/AC.10/C.3/2007/43.

Proposal

Industry proposal is to implement and enforce the measures for air shipments adopted recently at the ICAO Dangerous Goods Panel meeting in November in Montreal before considering any further modifications of the classification of lithium-metal based batteries.

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