



## **DANGEROUS GOODS PANEL (DGP)**

### **TWENTY-FIFTH MEETING**

**Montréal, 19 to 30 October 2015**

**Agenda Item 5: Development of a comprehensive strategy to mitigate risks associated with the transport of lithium batteries including development of performance-based packaging standards and efforts to facilitate compliance**

### **LITHIUM METAL BUTTON CELLS**

(Presented by PRBA – The Rechargeable Battery Association)

#### **SUMMARY**

This information paper addresses DGP/25-WP/39 and lithium metal button cells.

## **1. INTRODUCTION**

1.1 The unique design and form factor of lithium metal button cells compared to other types of cells provide a unique level of safety in use and in transport. The unique safety characteristics of button cells have been well documented by the Battery Association of Japan and presented to the ICAO Dangerous Goods Panel. Test [data](#) is available on ICAO's website.

1.2 When the U.S. Federal Aviation Administration conducted thermal tests on a number of lithium metal cells at the Technical Center in Atlantic City during the First International Multidisciplinary Lithium Battery Transport Coordination Meeting, the tests clearly showed the button cells were significantly less reactive than other types of lithium metal cells under these severe abuse conditions.

1.3 Recommendation 14/14 from the Multidisciplinary Lithium Battery Transport Coordination Meeting held in Cologne, Germany in 2014 specifically states that a "method be established to distinguish lithium metal button cells from other types of lithium metal cells."

1.4 We support adopting a new "Special Provision A2XX" as proposed in DGP/25-WP/39 that will clearly distinguish button cells from other cells until the UN Sub-Committee of Experts can consider a separate entry for button cells, which PRBA will present to the Sub-Committee in June 2016. However, we do not believe it is necessary at this time to remove the prohibition on shipping lithium metal button cells on passenger aircraft.

1.5 We also support maintaining the current package weight limit of 2.5 kg for cells containing not more than 0.3 grams of lithium content rather than the proposed 1 kg as noted in Special Provision A2XX.

## 2. DISCUSSION

2.1 The DGP is invited to consider the following changes to WP/39:

a) In Special Provision A2XX:

- Add “cargo-only aircraft” at the end of first sentence (i.e., “Lithium metal batteries (button cells) are not subject to the Technical Instructions when consigned as cargo on cargo-only aircraft.”
- In paragraph b), add a requirement for Cargo Aircraft Only label (i.e., “be labelled with a lithium battery handling label (Figure 5-31) that includes a reference to ‘button cells’ and the Cargo Aircraft Only label.”
- In paragraph c), change the maximum net quantity (weight) per package from 1 kg to 2.5 kg.

b) The proposed new entry in the dangerous goods list for “Lithium metal batteries (button cells not exceeding 0.3g lithium content)” should maintain “FORBIDDEN” under columns 10 and 11 and “See 968” under columns 12 and 13 to be consistent with the existing entry for Lithium metal batteries.

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