



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
WORKING GROUP OF THE WHOLE ON LITHIUM BATTERIES**

FIRST MEETING

Montréal, 6 to 10 February 2012

Agenda Item 6: Other business

LITHIUM BATTERIES AND APPROVALS REQUIRED FOR TRANSPORT

(Presented by PRBA — The Rechargeable Battery Association in coordination with RECHARGE (European Rechargeable Battery Association), EUROBAT (The Association of European Storage Battery Manufacturers — Automotive and Industrial Batteries) and European Automobile Manufacturers Association (ACEA))

SUMMARY

This paper addresses the problems associated with securing approvals from States for transporting large lithium ion batteries, lists possible alternatives to the approval process and requests comments from the DGP.

1. INTRODUCTION

1.1 The DGP has devoted an enormous amount of time discussing, drafting and amending the regulations that govern the transport of small lithium ion (and lithium metal) batteries that are excepted from regulation. The proliferation of lithium ion batteries in portable and large format (industrial) applications has been well-documented during these deliberations, but not their focus. This has prevented the DGP from devoting adequate time to the key issue of minimizing the burdens, to all involved, of securing Approvals from multiple States for transporting large lithium ion batteries (and prototype lithium ion batteries).

1.2 Lithium ion batteries transported by air are subject to three Approval provisions in the ICAO TI. These are:

- a) Special Provision A99 for lithium ion batteries that exceed the 35 kg cargo aircraft mass limitation;

- b) Packing Instruction 965 to authorize use of packaging that does not meet the requirements of Section 6 of the ICAO TI; and
- c) Special Provision A88 for shipping prototype lithium ion batteries.

1.3 The problems associated with securing Approvals from various States were brought to the DGP's attention by PRBA in May 2009 at the Working Group of the Whole meeting (see WP/40) and in October 2009 at the DGP meeting (see WP/60). Germany also filed papers on this issue in November 2010 at the DGP Working Group of the Whole meeting (see IP/2), April 2011 at the Working Group of the Whole meeting (see WP/50) and October 2011 DGP meeting (see WP/34).

2. LITHIUM BATTERY APPROVAL PROCESS

2.1 The lithium ion battery and automobile industries have a significant amount of experience securing lithium ion battery Approvals from numerous States. We have found that there are no consistent methods, policies or practices for evaluating, processing and issuing these Approvals amongst the various States. In addition, the requirement to have a new Approval by the authority in each "State of origin" is impracticable with regard to the future serious production of large lithium ion batteries for the mass market (e.g. in the application areas of electric mobility and renewable resources).

2.2 State agencies responsible for issuing Approvals for lithium ion battery shipments generally have limited battery experience or expertise and can often be slow in processing Approval requests.. In some cases, it has taken a State up to nine months to issue an Approval. We recognize that States have limited resources for processing these Approvals. However, this has created enormous difficulties for the battery and automobile industries in their getting products to market in a timely manner. Therefore, we believe it would be prudent for the DGP to consider an alternative to the Approval process for transporting lithium ion batteries that is more efficient but still ensures an adequate level of safety.

3. REQUEST FOR COMMENT ON ALTERNATIVES

3.1 Alternatives to an Approval could include standardized packaging specifications for large lithium ion batteries, standardized Approvals issued by States, packaging for prototypes that includes a fire resistant inner liner or some other method to ensure an adequate level of safety is achieved for transporting lithium ion batteries.

3.2 Members of the DGP are invited to provide comments to the industry through PRBA as we work towards finding an alternative to the Approvals process for transporting lithium ion batteries. Based on comments received, proposals will be prepared for DGP's consideration during the 2012-2013 DGP meetings.

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