



DANGEROUS GOODS PANEL (DGP)

TWENTY-FIRST MEETING

Montréal, 5 to 16 November 2007

Agenda Item 5: Resolution, where possible, of the non-recurrent work items identified by the Air Navigation Commission or the panel

5.4: Review of provisions for dangerous goods relating to lithium batteries

TRANSITION FOR LITHIUM ION BATTERY MARKING REQUIREMENT AND ALTERNATIVE TO WATT-HOUR MARKING

(Presented by PRBA)

SUMMARY

Based on amendments to the UN Model Regulations in the 15th edition and proposed amendments for the 2009-2010 Technical Instructions, lithium ion batteries subject to A45 must be marked with the watt-hour rating. This document proposes a transition period so that the marking requirement is not applicable to batteries manufactured prior to 1 January 2009 and an alternative watt-hour marking.

Action by the DGP is in paragraph 2.

1. INTRODUCTION

1.1 Based on amendments to Special Provision 188 of the UN Model Regulations, amendments to the Special Provision A45 are proposed on page 12 of DGP/21-WP7. Paragraph b) of the revised A45 will require that lithium ion batteries are marked with the watt-hour rating. The electronics industry commonly holds supplies of lithium ion batteries in inventory so that on the effective date of the 2009-2010 Technical Instructions there will be existing stocks of batteries that will not have been marked in accordance with the new watt-hour marking requirement. Batteries are typically marked with appropriate information at the time of manufacture so that without a transition period for existing batteries, transportation of these items would be disrupted. Previous changes to lithium battery requirements such as adoption of new UN lithium battery testing requirements were only applied to new batteries made after the effective date of the Technical Instructions.

1.2 It is a common practice within the lithium ion battery industry to mark batteries with the nominal voltage and capacity in ampere-hours or with watt-hours. The new definition for watt-hours in the UN Manual of Tests and Criteria requires that watt-hours be calculated by “*multiplying a cell or battery’s rated capacity, in ampere-hours, by its nominal voltage.*” Therefore, it would appear appropriate to allow lithium ion batteries to be marked with nominal voltage and capacity, in ampere-hours, as an alternative to watt-hours.

1.3 To avoid disruption with industry battery marking practices and consistent with the DGP’s past practices, PRBA proposes that the lithium ion watt-hour marking provision be made applicable to new batteries manufactured after 31 December 2008 and allow lithium ion batteries be marked with nominal voltage and capacity in ampere-hours as an alternative to watt-hours.

2. ACTION BY THE DGP

2.1 The DGP is invited to adopt the following revision to the last sentence in paragraph b) of Special Provision A45 as shown on page 12 of DGP/21-WP/7:

Lithium ion batteries manufactured after 31 December 2008 and subject to this provision must be marked with the watt-hour rating or nominal voltage and capacity, in ampere-hours, on the outside case;

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