



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
WORKING GROUP MEETING (DGP-WG/18)**

Montréal, 1 to 5 October 2018

- Agenda Item 3: Managing safety risks posed by the carriage of lithium batteries by air**
3.6: Develop provisions aimed at improving compliance throughout the transport supply chain, including simplification of provisions, guidance on State oversight and outreach, and responsibilities of entities outside the aviation stream (Job card DGP.003.02)

**CLARIFICATION OF THE APPLICABILITY OF SECTIONS IN LITHIUM BATTERY
PACKING INSTRUCTIONS**

(Presented by J. Jin)

SUMMARY

This working paper invites the DGP-WG to clarify the application of the Watt-hour rating limits in Sections I, IB and II of Packing Instructions 965 and 968.

Action by the DGP: The DGP-WG is invited to clarify the applicability of the Watt-hour rating limits in Sections I, IB and II of Packing Instructions 965 and 968.

1. INTRODUCTION

1.1 The introductory section of Packing Instruction 965 sets out the applicability for each section in it as follows:

- Section IA applies to lithium ion cells with a Watt-hour rating in excess of 20 Wh and lithium ion batteries with a Watt-hour rating in excess of 100 Wh, which must be assigned to Class 9 and are subject to all of the applicable requirements of these Instructions;
- Section IB applies to lithium ion cells with a Watt-hour rating not exceeding 20 Wh and lithium ion batteries with a Watt-hour rating not exceeding 100 Wh packed in quantities that exceed the allowance permitted in Section II, Table 965-II; and
- Section II applies to lithium ion cells with a Watt-hour rating not exceeding 20 Wh and lithium ion batteries with a Watt-hour rating not exceeding 100 Wh packed in quantities not exceeding the allowance permitted in Section II, Table 965-II.

A single cell battery as defined in Part III, sub-section 38.3.2.3 of the UN *Manual of Tests and Criteria* is considered a “cell” and must be transported according to the requirements for “cells” for the purpose of this packing instruction.

1.2 While it is clear that a single-cell lithium ion battery with a Watt-hour rating of 25Wh must be packed in accordance with Section IA of Packing Instruction 965, it is not clear which sections could be applied to a 90 Wh lithium ion battery containing two 45 Wh component cells. Could the battery be packed in accordance with Sections IB or II?

1.3 The same problem exists with Packing Instruction 968.

2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to clarify the applicability of Sections I, IB and II of Packing Instructions 965 in cases where the watt-hour rating of the battery is within the limits of Sections IB and II but where the watt-hour rating for each component cell in the battery is not. Similar clarification is needed for Packing Instruction 968.

— END —