International Civil Aviation Organization

DGP-WG/26-WP/25
13/10/26

WORKING PAPER

DANGEROUS GOODS PANEL (DGP) WORKING GROUP MEETING (DGP-WG/26)

Centurion, South Africa, 26 to 30 October 2026

Agenda Item 4: Managing safety risks posed by the carriage of energy storage devices by air (Ref: Job Card DGP.006)

IATA CHANGES TO DANGEROUS GOODS CARRIED BY PASSENGERS AND CREW IN THE 68TH (2027) EDITION OF THE IATA DANGEROUS GOODS REGULATIONS

(Presented by B. Firkins)

SUMMARY

This working paper informs the working group of changes, decided by the International Air Transport Association (IATA) Dangerous Goods Board (DGB), regarding batteries and portable electronic devices (PEDs) carried by passengers and crew.

Action by the DGP-WG is in paragraph 5.

1. INTRODUCTION

1.1 In March 2026, the International Air Transport Association (IATA) Dangerous Goods Board (DGB) agreed to a number of changes to Section 2.3 of the IATA Dangerous Goods Regulations, which were more restrictive than those set out in Part 8 of the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284). Those changes, and the rationale are set out below. The changes will take effect from 1 January 2027.

2. GALVANICALLY SEPARATED BATTERIES

2.1 Multiple batteries within a single casing have been becoming progressively popular, especially as home gardening and hardware power tools are being transitioned from internal combustion engine or electrical mains power, to rechargeable battery powered.

2.2 Some jurisdictions regard these as a single battery, whilst some regard them as multiple batteries in a single casing, which, when connected into the device, become a single battery.

2.3 Irrespective of whether it is three batteries (comprising five cells per battery) in a single casing; or the same fifteen cells in a single casing; the safety risk arising from one cell entering a thermal runaway event will be similar.

2.4 In some circumstances, the multiple battery option is designed to deliver flexible options for drawing power from the battery. In other circumstances, the evolution of multiple batteries in a single casing is to keep the individual cells/batteries below the 20Wh/100Wh thresholds in UN Model Regulations Special Provision 188 (consistent with the Section II provisions in the packing instructions for lithium batteries contained in the Technical Instructions).

2.5 For the purposes of the sub-section related to portable electronic devices carried by passengers and crew; multiple batteries in a single casing are to be treated according to the combined Watt-hour rating within the casing. So, a casing with three internal batteries of 40 Wh each, is to be treated as being 120 Wh and subject to the approval of the operator.

2.6 Portable medical electronic devices (PMED) were expressly excepted from this change when approved by the operator. A number of existing portable oxygen concentrators; which have been approved by operators, use multiple 99 Wh batteries in a single casing. Extending the blanket application of multiple batteries within a single casing to PMEDs would result in passengers and operators reverting to bottled oxygen cylinders for passengers.

3. WATT HOUR RATING LIMITATIONS ON A "PER DEVICE" BASIS

3.1 Operators were concerned that the existing provisions for batteries carried by passengers are based on the energy within the battery and there was no constraint to the number of batteries within the device. The concern was also emerging that passengers were beginning to bring items with multiple batteries to power a device (and not in a single casing), where the total energy stored within the device exceeded 100 Wh.

3.2 Changes to lithium battery energy limits "per device" when carried by passengers, will be introduced for:

a) PEDs up to 100 Wh per device (with installed batteries) will not require approval of the operator

b) PEDs of 100 to 160 Wh per device (with installed batteries) will require the approval of the operator

c) PMEDs approved by the operator will not be subject to the "per device" limitations.

4. NOT PERMITTING POWER BANKS OF 100-160 WH

4.1 Power banks are rapidly emerging as the most common cause of lithium battery events in flight. There are low barriers to manufacture, limited options for upstream verification and low levels of confidence in regulatory oversight of the cargo supply chain. Furthermore, research is demonstrating that consumers continue to make purchases based on price and without regard to safety.

4.2 The Technical Instructions permit crews, in accordance with the operator's procedures, to use power banks of up to 100 Wh in the performance of their duties. Provision was not made for crews to use power banks of 100 to 160 Wh.

4.3 There was some argument that power banks of 100 to 160 Wh ought to be allowed for portable medical electronic devices (PMED). Usually, battery powered medical devices have OEM provided batteries which normally conform as "spare batteries". Operators were unable to provide examples of where power banks of 100 to 160 Wh had been approved for PMEDs.

5. ACTION BY THE DGP-WG

5.1 The DGP-WG is invited to provide their views on:

a) the matters raised in this working paper;

b) whether similar changes ought to be included in Part 8 of the Technical Instructions; and

c) whether consideration for multiple batteries in a single casing also ought to be applied to the cargo provisions; specifically with regard to the Section IB and Section II packing instructions.

— END —