International Civil Aviation Organization





WORKING PAPER

# DANGEROUS GOODS PANEL (DGP) WORKING GROUP MEETING (DGP-WG/17)

Montreal, 24 to 28 April 2017

Agenda Item 2:Development of recommendations for amendments to the Technical Instructions<br/>for the Safe Transport of Dangerous Goods by Air (Doc 9284) for incorporation in<br/>the 2019-2020 Edition

2.8: Part 8 — Provisions Concerning Passengers and Crew

### MOBILITY AIDS POWERED BY LITHIUM ION BATTERIES

(Presented by D. Brennan)

## SUMMARY

This information paper is presented for information and discussion in relation with the requirements of Part 8 of the Technical Instructions concerning mobility aids powered by lithium ion batteries.

Action by the DGP-WG: The DGP is invited to discuss the opportunities of including air transport requirements in the International Organization for Standardization (ISO) standards and making reference to the applicable ISO standard in Part 8;1.1 and Table 8-1.

### 1. **INTRODUCTION**

1.1 With the evolution of lithium battery technology and through an increasing number of new innovations, lithium ion batteries have become the battery of choice for powering electric wheelchairs and mobility aids. This poses significant challenges for the operators and their ground handling agents who are expected to comply with the requirements for persons with reduced mobility and to accept such lithium battery powered mobility aids onto aircraft.

1.2 In an attempt to try and address some of the problems operators face when handling these devices, an IATA mobility aid working group was formed in 2016 with the aim of developing a guidance document for passengers, mobility aid manufacturers, ground handling agents and operators.

1.3 One of the recommendations from the working group was to try and address some of the problems at source by engaging with manufacturers of such devices.

1.4 IATA contacted the International Organization for Standardization (ISO) in 2016 who advised that a new standard was under development — *ISO TC 173/SC 1/WG10 Wheelchairs* — *Batteries and chargers* — *particular requirements for lithium based batteries, their battery managers and their chargers*.

1.5 Following a formal application, IATA has been accepted onto the ISO WG10 as a liaison, with the intention of advising the ISO WG on the air transport requirements for lithium battery powered wheelchairs and mobility aids.

#### 2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to discuss the opportunities of including air transport requirements in ISO standards and making reference to the applicable ISO standard in Part 8;1.1 and Table 8-1.

2.2 As a minimum, the following are recommended for inclusion in the ISO standard:

- a) type of battery;
- b) if lithium ion, the Watt-hour rating;
- c) weight (battery and device);
- d) dimensions (battery and device);
- e) if batteries meet UN38.3 requirements;
- f) joystick controls how to prevent inadvertent activation;
- g) how instructions are made available to operators QR code on the device is one option with a link to the company website (it is impractical to expect the passenger to carry an instruction manual);
- h) tipping allowed relevant for smaller aircraft;
- i) power disconnection; and
- j) terminal protection.

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