

## DANGEROUS GOODS PANEL (DGP) WORKING GROUP MEETING (DGP-WG/16)

### Montreal, 17 to 21 October 2016

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

2.8: Part 8 — Provisions Concerning Passengers and Crew

# BATTERY ENERGY RATES FOR MOBILITY AIDS EQUIPMENT AND FOR PORTABLE MEDICAL ELECTRONIC DEVICES

(Presented by P. Tatin)

#### **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 share their experience on this subject and to consider an applicable energy rate limit concerning this type of equipment.

#### 1. INTRODUCTION

- 1.1 A recent difficulty was encountered by a French operator when passengers whose mobility was restricted were planning to fly with their mobility aids powered by lithium ion batteries from Paris to Rio de Janeiro in order to participate as athletes or members of the French national team to the Rio Paralympic Games.
- 1.2 Their mobility aids were of different types: Segway, tripod, etc... which were equipped with removable lithium ion batteries whose energy (620 Wh, 450 Wh) exceeded the limits set by the Technical Instructions in Part 8, Table 8-1 (see examples below).

## Vehicles:



## Adapted systems to mechanical wheelchairs:



1.3 Annex II of Regulation (EC)  $n^{\circ}$  1107/2006 of the European Parliament and of the Council of 5 July 2006 concerning the rights of disabled persons and persons with reduced mobility when travelling by air states that:

"In addition to medical equipment, transportation of up to two pieces of mobility equipment per disabled person or person with reduced mobility, including electric wheelchairs, subject to advance warning of 48 hours and to possible limitations of space on board the aircraft, and subject to the application of relevant legislation concerning dangerous goods"

1.4 New equipment and new technology has led to cases of batteries exceeding the actual energy limits set by the Technical Instruction, Part 8.

- 1.5 Because of the need for increased mobility and the prevalence of new equipment and technology, operators have been and will continue to face difficulties with managing mobility aids for passengers in accordance with Part 8 of the Technical Instructions, while considering the conditions set by Regulation (EC) n°1107/2006.
- 1.6 In addition, there is a great discrepancy between the acceptance of mobility aids designed to allow their batteries to be removed (collapsible) versus those for which the batteries cannot be removed in that there are no limits set for the latter.

## 2. **DISCUSSION**

- 2.1 The DGP is invited to discuss the increase in energy for batteries which power mobility aids designed to allow their batteries to be removed (collapsible) set in Part 8 of Technical Instructions and homogenize the values for primary batteries and spare ones in order to simplify the regulations and to render the applicability by operators and passengers easier (actual values for batteries which are collapsible: primary 300 Wh, and spare  $1 \times 300$  Wh or  $2 \times 160$  Wh).
- 2.2 In addition, with the same objective of simplification and ease of applicability by operators and passengers, the DGP is invited to consider the feasibility of defining a common Watt-hour value for portable medical electronic devices (e.g. automated external defibrillators (AED), nebulizer, continuous positive airway pressure (CPAP)) containing lithium metal or lithium ion batteries, recognizing that the limits set in the Technical Instructions can often be exceeded due to new technology (max. metal 8 g, ion 160 Wh).

