



## DANGEROUS GOODS PANEL (DGP)

### TWENTY-FOURTH MEETING

Montréal, 28 October to 8 November 2013

#### Agenda Item 6: Other business

#### REVIEW OF PROVISIONS FOR BATTERY-POWERED MOBILITY AIDS

(Presented by D. Brennan)

##### SUMMARY

This paper proposes that the panel, in the next biennium, consider a review of the provisions for mobility aids. Issues for consideration include a limit on the size of lithium ion batteries (Watt-hour limit); and the potential benefits / safety concerns of allowing passengers to carry spare batteries for mobility aids.

**Action by the DGP:** The DGP is invited to consider if in the 2014 – 2015 biennium there should be work done in conjunction with associations or organizations representing the manufacturers of battery-powered mobility aids and groups or associations for persons of reduced mobility to review the provisions of Part 8, Table 8-1, items 5), 6) and 7). Some possible issues to be resolved are:

- a) Establishment of a limit, or recommended maximum, Watt-hour rating for lithium ion batteries in mobility aids. Would this be a “hard” limit or could there be a provision for the limit to be exceeded where there was a demonstrated need for additional power, e.g. to power a ventilator. Could this be done with the approval of the CAA of the State of the Operator?
- b) Consideration of provisions for the carriage of spare non-spillable (and lithium ion?) batteries for mobility aids. Here the group should identify if there is a real need for persons with reduced mobility to be able to carry a spare battery as part of their baggage when travelling. If this is a “niche” requirement, should these be allowed with the approval of the operator without penalty?
- c) Develop some clear definition or specification of what constitutes “collapsible”. At the present time operators are being faced with a number of different designs of mobility aids, some of which can be “collapsed” for transport. What is the requirement? Must the battery be removed?

- d) Should there be consideration of a “code of conduct” for mobility aid manufacturers where the manufacturer would clearly identify how the mobility aid is made safe for air transport and even potentially have standard methods to “disable” the mobility aid when being transported? This would greatly simplify the operator’s acceptance of the mobility aid to prevent inadvertent activation and also potential damage by handling staff.
- e) If the code of conduct were developed would associations or groups representing persons with reduced mobility also sign on to the use and promotion of the code of conduct to help to better educate passengers travelling with battery-powered mobility aids on the needs of airlines to be able to better handle them and their mobility aid when travelling by air?

## 1. INTRODUCTION

1.1 Table 8-1, items 5), 6) and 7) set out the provisions under which passengers may have as part of their baggage battery-powered mobility aids.

1.2 As more States adopt and enforce legislation for persons of reduced mobility, airlines are receiving demands from passengers with battery-powered mobility aids for the passenger to be able to carry spare batteries for the mobility aid. However, aside from collapsible lithium battery-powered mobility aids, Table 8-1 makes no allowance for passengers to carry spare batteries for such mobility aids.

1.3 There is then the consideration of whether there should be a limit specified on the Watt-hour rating permitted for lithium ion batteries in mobility aids, and if so just what that limit should be.

1.4 As the mobility aid and lithium and other battery technology keeps developing manufacturers of mobility aids are looking to utilise this evolving technology to provide mobility aids that are able to keep operating longer between charge cycles and to allow the users of these mobility aids greater independence when they travel. This is all as it should be to help to reduce the barriers posed by a disability, but at what point does this increasing use of battery storage capacity create a risk for the operator, other passengers and the operator’s employees?

1.5 The provisions in Part 8 for battery-powered mobility aids have been revised and amended at various times over the years. Initially all batteries had to be disconnected. But then it was recognized that disconnecting the battery actually created more problems and potential damage to the mobility aid, so the provisions were revised to allow for the battery to remain connected, provided that certain conditions could be met.

1.6 With the advent of lithium batteries as a power source for mobility aids provisions were added to allow this type of battery. Then the panel agreed to make allowance for lightweight “collapsible” lithium battery powered mobility aids and add this into Part 8.

1.7 All of this though has been done without any real consultation with organizations that represent either the mobility aid industry or persons with reduced mobility.

1.8 From an operator perspective there is no desire to have to provide facilities for the transport of spare batteries for mobility aids that use non-spillable batteries, batteries that meet Special Provision A123, such as nickel-metal hydride batteries or lithium ion batteries. In the past many operators had stocks of battery boxes at their airports so that in event of a passenger with a wheelchair with a spillable battery where the battery had to be removed, the battery box would be used to move the battery.

1.9 However, as spillable batteries have almost completely disappeared from use in mobility aids, the operators have disposed of these battery boxes.

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