International Civil Aviation Organization

WORKING PAPER

DGP/23-WP/75
29/8/11
Revised
25/9/11

DANGEROUS GOODS PANEL (DGP)

TWENTY-THIRD MEETING

Montréal, 11 to 21 October 2011

Agenda Item 5: Resolution, where possible, of the non-recurrent work items identified by the Air Navigation Commission or the panel:
Agenda Item 5.1: Review of provisions for the transport of lithium batteries

LITHIUM ION BATTERY-POWERED MOBILITY AIDS

(Presented by D. Brennan)

REVISED

SUMMARY

This working paper proposes a change to the provisions for carriage of lithium ion battery- powered mobility aids to permit removed batteries to be carried in the passenger cabin.

Action by the DGP: The DGP is invited to modify Part 8;1.1.2 g) as presented in the appendix to this working paper.

1. INTRODUCTION

1.1 Lithium battery powered mobility aids are an increasingly popular mobility aid and therefore increasingly common in air transport. In order to accommodate passengers requiring these mobility aids, the panel agreed to text that was adopted into the 2011-2012 ICAO Technical Instructions (8;1.1.2 g)).

1.2 Some new designs of mobility aids require the lithium ion battery to be removed from the equipment to permit efficient and effective stowage and transport of the mobility aid (e.g. Travelscoot™, see Figure 1). The design of these types of mobility aids is such that the lithium ion battery is not designed to remain installed, when stowed for transport.

1.3 In these instances it is believed that it is safer to then require that the removed lithium ion battery be carried in the aircraft cabin rather than being left as checked baggage with the mobility aid. However, the existing provisions for the larger lithium ion batteries impose a limit of 160 Wh. Mobility aids though require a lithium ion battery with a capacity greater than 160 Wh. It is therefore proposed to revise the specific provisions for the lithium battery mobility aids to allow for a battery of up 300 Wh. This value has been placed in square brackets to seek the view of the panel on whether this is an appropriate limit.

Figure 1. TravelscootTM Upright and Collapsed

Figure 2. Rear view of battery (gold metal rectangular item), green pack is a second battery that "can" be added.

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APPENDIX

PROPOSED AMENDMENTS TO THE TECHNICAL INSTRUCTIONS

Part 8

PROVISIONS CONCERNING PASSENGERS AND CREW

1.1.2 Notwithstanding any additional restrictions which may be implemented by States in the interests of aviation security, except for the incident reporting provisions of 7;4.4 or 7;4.5, as applicable, the provisions of these Instructions do not apply to the following when carried by passengers or crew members or in baggage that has been separated from its owner during transit (e.g. lost baggage or improperly routed baggage) or in excess baggage carried as cargo as permitted by 1;1.1.4.1 g):

. . .

g) with the approval of the operator(s), lithium-ion battery-powered wheelchairs or other similar mobility aids for use by passengers whose mobility is restricted by either a disability, their health or age, or a temporary mobility problem (e.g. broken leg), subject to the following conditions:

1) when carried as checked baggage:

~~1~~a) the batteries must be of a type which meets the requirements of each test in the UN Manual of Tests and Criteria, Part III, section 38.3;

~~2~~b) battery terminals must be protected from short circuits (e.g. by being enclosed within a battery container) and the battery must be securely attached to the wheelchair or mobility aid;

~~3~~c) the operator(s) must ensure that such mobility aids are carried in a manner so as to prevent unintentional activation and that they are protected from being damaged by the movement of baggage, mail, stores or other cargo; and

~~4~~d) the pilot-in-command must be informed of the location of the mobility aid.

2) when the mobility aid is so designed that the battery must be removed during transport, the battery must be in carry-on baggage, provided that:

a) the battery must be of a type which meets the requirements of each test in the UN *Manual of Tests and Criteria*, Part III, section 38.3;

b) battery terminals must be protected from short circuits (by placement in original retail packaging or otherwise insulating the terminal e.g. by taping over exposed terminals or placing each battery in a separate plastic bag or protective pouch);

c) removal of the battery from the device should be performed by qualified personnel following the instructions of the manufacturer or device owner; and

d) the watt hour rating of the removed battery is not more than [300 Wh].

It is recommended that passengers make advance arrangements with each operator.

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