



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 for the Safe Transport of Dangerous Goods by Air (Doc 9284)* for incorporation in the 2019-2020 Edition

2.7: Part 7 — Operator's Responsibilities

2.8: Part 8 — Provisions Concerning Passengers and Crew

BATTERY POWERED MOBILITY AIDS

(Presented by M. Paquette)

SUMMARY

This working paper proposes revisions to the provisions for battery powered mobility aids. The purpose is to simplify the provisions.

Action by the DGP: The DGP is invited to consider the proposed amendments to Part 7;2 and Part 8 as shown in the appendix to this working paper.

1. INTRODUCTION

1.1 A working paper presented at the last Dangerous Goods Panel Working Group Meeting (DGP-WG/16-WP/37, see 3.2.8.2 of the DGP-WG/16 report) proposed to revise the passenger provisions for battery-powered mobility aids. It proposed to merge the three entries currently included in Table 8-1 for mobility aids powered by non-spillable wet batteries, mobility aids powered by spillable batteries, and mobility aids powered by lithium ion batteries. The proposal also incorporated all operator responsibilities relating to mobility aids in the storage and loading chapter of Part 7.

1.2 The current entries for mobility aids in Table 8-1 include requirements that can only be applied by the operator and which are out of the passenger's control (e.g., loading, stowing, securing and unloading the mobility aid). The proposed single entry limits the provisions to those that are within the passenger's control. Provisions that are the responsibility of the operator are moved to the storage and loading chapter of Part 7.

1.3 There was strong support for the moving of requirements which only the operator could apply. A number of suggestions for improvement were discussed. The majority of these suggestions are incorporated in this proposal.

1.4 At DGP-WG/16, the provisions relating to “collapsible” mobility aids were discussed. A mobility aid could be considered collapsible if the seat could be removed or folded down or if the handle bars could be lowered, but that did not necessarily mean that the batteries needed to be removed to collapse it. Members had noted that the provisions related to “collapsible” mobility aids were unclear and caused problems for operators. It was generally believed that the batteries should remain installed in the mobility aid unless the mobility aid could not adequately protect the batteries. As a result of the discussions, all references to the term “collapsible” are removed as the ability of a mobility aid to be “collapsible” is irrelevant as long as the battery is protected.

2. ACTION BY THE DGP-WG

2.1 The DGP is invited to consider the proposed amendments to Part 7;2 and Part 8 as shown in the appendix to this working paper.

APPENDIX

PROPOSED AMENDMENT TO PART 7 OF THE TECHNICAL INSTRUCTIONS

Part 7

OPERATOR'S RESPONSIBILITIES

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Chapter 2

STORAGE AND LOADING

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2.13 LOADING OF BATTERY POWERED MOBILITY AIDS
CARRIED UNDER THE PROVISIONS OF PART 8

2.13.1 Loading of non-spillable battery powered mobility aids

2.13.1.1 An operator must secure a battery powered mobility aid to prevent movement and protect it from being damaged by the movement of baggage, mail, stores or other cargo.

2.13.1.2 An operator must verify that:

a) the battery terminals are protected from short circuits (e.g. by being enclosed within a battery container); and

b) the battery is either:

i. securely attached to the mobility aid and the electrical circuits are isolated in accordance with the manufacturer's instructions; or

ii. removed from the mobility aid in accordance with the manufacturer's instructions when the mobility aid does not adequately protect the battery.

2.13.1.3 An operator must ensure that the batteries removed from the mobility aid are carried in strong, rigid packagings, are protected from short circuit and are stowed in the cargo compartment.

2.13.1.4 The operator must inform the pilot-in-command of the location of any removed batteries.

2.13.2 Loading of spillable battery powered mobility aids

2.13.2.1 An operator must secure a battery powered mobility aid to prevent movement and protect it from being damaged by the movement of baggage, mail, stores or other cargo.

2.13.2.2 An operator must verify that:

a) The battery terminals are protected from short circuits (e.g. by being enclosed within a battery container); and

b) The battery is either:

i. securely attached to the mobility aid and the electrical circuits are isolated in accordance with the manufacturer's instructions; or

ii. removed from the mobility aid in accordance with the manufacturer's instructions when required by 2.13.2.3.

2.13.2.3 An operator must load, stow, secure, and unload a spillable battery-powered mobility aid in an upright position, where possible. If the mobility aid cannot be loaded, stowed, secured and unloaded always in an upright position,

the operator must remove the batteries and carry them in strong, rigid packagings, as follows:

- a) packagings must be leak-tight, impervious to battery fluid and be protected against upset by securing them to pallets or by securing them in cargo compartments using appropriate means of securement;
- b) batteries must be protected against short circuits, secured upright in these packagings and surrounded by compatible absorbent material sufficient to absorb their total liquid contents; and
- c) these packagings must be marked "Battery, wet, with wheelchair" or "Battery, wet, with mobility aid" and be labelled with a "Corrosive" label (Figure 5-24) and with package orientation labels (Figure 5-29) as required by 5.3.

2.13.2.4 The operator must inform the pilot-in-command of the location of any mobility aids with installed spillable batteries or any removed batteries.

2.13.3 LOADING OF LITHIUM ION BATTERY POWERED MOBILITY AIDS

2.13.3.1 An operator must secure a battery powered mobility aid to prevent movement and protect it from being damaged by the movement of baggage, mail, stores or other cargo.

2.13.3.2 An operator must verify that:

- a) The battery terminals are protected from short circuits (e.g. by being enclosed within a battery container); and
- b) The battery is either:
 - A. securely attached to the mobility aid and the electrical circuits are isolated in accordance with the manufacturer's instructions; or
 - B. removed from the mobility aid in accordance with the manufacturer's instructions when the mobility aid does not adequately protect the battery.

2.13.3.3 An operator must ensure that the batteries removed from the mobility aid are carried in the cabin and are protected from damage (e.g., by placing each battery in a protective pouch).

2.13.3.4 The operator must inform the pilot-in-command of the location of any mobility aids with installed lithium ion batteries or any removed batteries.

2.13.4 HANDLING OF SELF-REACTIVE SUBSTANCES AND ORGANIC PEROXIDES

During the course of transport, packages or unit load devices containing self-reactive substances of Division 4.1 or organic peroxides of Division 5.2 must be shaded from direct sunlight, stored away from all sources of heat in a well-ventilated area.

Renumber subsequent paragraphs accordingly

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Part 8

PROVISIONS CONCERNING
PASSENGERS AND CREW

Chapter 1

PROVISIONS FOR DANGEROUS GOODS
CARRIED BY PASSENGERS OR CREW

Parts of this Chapter are affected by State Variations US 15, VE 9, VE 10; see Table A-1

1.1 DANGEROUS GOODS CARRIED BY PASSENGERS OR CREW

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Table 8-1. Provisions for dangerous goods carried by passengers or crew

| Items or articles | Location | | | Approval of the operator(s) is required | The pilot-in-command must be informed | Restrictions |
|--|-----------------|---------------------|---------------|---|---------------------------------------|--|
| | Checked baggage | Carry-on baggage | On the person | | | |
| Medical necessities | | | | | | |
| ... | | | | | | |
| 4) Radioisotopic cardiac pacemakers or other medical devices, including those powered by lithium batteries | n/a | n/a | Yes | No | No | Must be implanted into a person or fitted externally as the result of medical treatment. |
| Radio-pharmaceuticals contained within the body of a person | n/a | n/a | Yes | No | No | Must be as the result of medical treatment. |
| 5) <u>Battery powered mobility aids (e.g. wheelchairs)</u> | <u>Yes</u> | <u>(see e) iii)</u> | <u>No</u> | <u>Yes</u> | <u>Yes (see 7:2.13)</u> | <u>a) the mobility aid is 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);</u> <u>b) the passenger should make advance arrangements with each operator and provide information on the type of battery installed and on the handling of the mobility aid (including instructions on how to isolate the battery);</u> <u>c) each non-spillable wet battery must comply with Special Provision A67 or the vibration and pressure differential tests of Packing Instruction 872;</u> <u>d) each lithium battery must be of a type which meets the requirements of each test in the UN Manual of Test and Criteria, Part III, subsection 38.3;</u> |

| <i>Items or articles</i> | <i>Location</i> | | | <i>Approval of the operator(s) is required</i> | <i>The pilot-in-command must be informed</i> | <i>Restrictions</i> |
|---|------------------------|-------------------------|----------------------|--|--|--|
| | <i>Checked baggage</i> | <i>Carry-on baggage</i> | <i>On the person</i> | | | |
| | | | | | | <p><u>e) when the mobility aid does not adequately protect the lithium battery, the battery must:</u></p> <p><u>i) be removed, in accordance with the manufacturer's instructions;</u></p> <p><u>ii) not exceed 300 Wh;</u></p> <p><u>iii) be carried in the cabin; and</u></p> <p><u>iv) be protected from damage (e.g. by placing each battery in a protective pouch);</u></p> <p><u>f) for the mobility aid described in e), one spare battery not exceeding 300 Wh is permitted or two spare batteries not exceeding 160 Wh each are permitted and must be carried in the cabin and be protected from damage (e.g. by placing each battery in a protective pouch).</u></p> |
| Renumber subsequent paragraphs accordingly | | | | | | |
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