



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
MEETING OF THE WORKING GROUP OF THE WHOLE**

Montréal, 15 to 19 April 2013

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 2015-2016 Edition

2.8 : Part 8 — Provisions Concerning Passengers and Crew

MEDICAL DEVICES

(Presented by the Secretary)

SUMMARY

This working paper provides a summary of discussions which took place through correspondence on apparent discrepancies between passenger and crew provisions for portable medical devices containing lithium batteries provided in the current edition of the Technical Instructions versus those provided in the previous edition. It also provides background information on discussions which led to the introduction of the provisions into the Instructions. The working group is invited to consider this information when discussing the proposal to amend the provisions for portable electronic devices containing lithium batteries presented in DGP-WG/13-WP/19.

Action by the DGP-WG is in paragraph 4.

1. INTRODUCTION

1.1 Portable medical electronic devices containing lithium batteries are shown as being permitted in carry-on baggage only in Table 8-1 of the 2013-2014 Edition of the Technical Instructions (Item 8)). In the 2011-2012 Edition, no restriction on checked baggage is shown for the devices, although spares are restricted to carry-on baggage only (sub-paragraph h) of 8;1.1.2). This discrepancy was raised by a panel member as something which should be corrected as an editorial amendment through a corrigendum to the current edition of the Technical Instructions. This led to a discussion through correspondence whereby other issues with provisions for portable medical electronic devices containing lithium batteries were raised, particularly as they relate to separate provisions for consumer electronic devices containing lithium batteries. While some members agreed that a corrigendum was warranted, others questioned whether the change could really be considered editorial, particularly in light of the additional issues raised. It was determined that more consideration was needed and that if any changes were needed they could wait until after DGP-WG/13.

1.2 A proposal to amend the passenger and crew provisions for portable medical electronic devices is made in DGP-WG/13-WP/19. This paper outlines the issues raised on the subject through correspondence and provides background information on the original discussion which led to the provision being added to the Technical Instructions.

2. ISSUES RAISED THROUGH CORRESPONDENCE

2.1 In addition to the discrepancy between the 2011-2012 Edition of the Technical Instructions where there was no distinction between medical devices containing lithium batteries in carry-on or checked baggage and the current edition where they are permitted in carry-on only, the following issues were raised:

- a) Why was operator approval for medical devices containing lithium batteries required when none was required for portable electronic devices?
- b) Why was there a limit of two spare batteries for medical devices when there was none for consumer devices?
- c) Was sub-paragraph a) under the Restrictions column of Table 8-1 for portable medical electronic devices necessary (i.e. “carried by passengers for medical use”)?
- d) If devices are permitted in checked baggage, should the net quantity of lithium batteries be limited?

2.2 Some members felt that medical devices containing lithium batteries should be treated the same way as consumer electronic devices. A comparison of the two provisions is provided in the appendix to this paper to facilitate discussion.

2.3 It was noted that the limits for lithium metal content and watt hours were higher for medical devices than they were for consumer devices (i.e. 8 g versus 2 g and 160 Wh versus 100 Wh) and that this was the justification behind requiring operator approval and limiting the number of spare batteries permitted for medical devices. It was also noted that although consumer devices were permitted in checked baggage, there was a recommendation for them to be carried in carry-on baggage.

3. BACKGROUND INFORMATION RELATED TO THE DECISION TO INCLUDE PROVISIONS FOR MEDICAL ELECTRONIC DEVICES CONTAINING LITHIUM BATTERIES IN THE TECHNICAL INSTRUCTIONS.

3.1 The separate provision for medical devices containing lithium batteries was added to the 2011-2012 Edition of the Technical Instructions under the heading for medical necessities (see paragraph 5.4.10 of DGP/22-WP/100). Although it was recognized that these devices could be carried in accordance with the provision for portable electronic devices containing lithium batteries that appeared under the consumer article heading, a separate entry would be consistent with the way other articles, such as aerosols, were treated in that they were included under more than one heading. It would also facilitate navigation of the table, particularly when referred to it through the note under the general exceptions for dangerous goods carried by an aircraft:

Note.— For dangerous goods that passengers are permitted to carry as medical aid, see 8;1.1.2 [Table 8-1].) (Part 1;1.1.3 a) of the 2011-2012 Edition, 1;1.1.5.1 a) of the current edition).

3.2 The original proposal limited the lithium content for lithium metal batteries to 2 g and the watt-hour rating for lithium ion batteries to 100 Wh, An increase to 8 g and 160 Wh was subsequently adopted to allow for medical devices known to exceed these limits. Some panel members expressed concerns with the significant increase in size, but these were alleviated with the knowledge that operator approval was required to carry them. The original proposal included a recommendation for the devices to be carried in carry-on baggage and a mandatory requirement for the spares to be carried in carry-on. The revised proposal agreed by the panel contained neither a recommendation nor a requirement for the devices to be carried in carried-on baggage.

4. ACTION BY THE DGP-WG

4.1 Although there is no amendment proposed in this working paper, the working group is invited to consider the information in it when discussing the amendments proposed in DGP-WG/13-WP/19.

APPENDIX

COMPARISON BETWEEN PASSENGER AND CREW PROVISIONS FOR PORTABLE ELECTRONIC DEVICES CONTAINING LITHIUM BATTERIES VERSUS PORTABLE ELECTRONIC DEVICES CONTAINING LITHIUM BATTERIES

Portable medical electronic devices containing lithium batteries	Portable electronic devices containing lithium batteries
— Carried by passengers for medical use	— Carried by passengers or crew for personal use
— Lithium metal content of not more than 8 grams	— Lithium metal content of not more than 2 grams
— Watt-hour rating not more than 160 Wh	— Watt-hour rating not more than 100 Wh
— Approval of the operator required	— Approval of operator not required unless batteries exceed a watt-hour rating of 100 Wh (above 160 Wh not permitted)
— Must be carried in carry-on baggage	— Should be carried as carry-on baggage — Spare batteries and cells must be in carry-on baggage — Portable electronic devices containing lithium batteries exceeding a watt-hour rating of 100 Wh but not exceeding 160 Wh approved to be carried by the operator should be in carry-on baggage
— Each- installed or spare battery must be of the type which meets the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3	— Batteries and cells must be of the type which meets the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3
— Not permitted in checked baggage	— If carried in checked baggage, measures must be taken to prevent unintentional activation
— No more than two spares	— No limit on the number of spares
— Spare batteries must be individually protected so as to prevent short circuits (by placement in original retail packaging or by otherwise insulating terminals, e.g. by taping over exposed terminals or placing each battery in a separate plastic bag or protective pouch)	— Spare batteries must be individually protected so as to prevent short circuits (by placement in original retail packaging or by otherwise insulating terminals, e.g. by taping over exposed terminals or placing each battery in a separate plastic bag or protective pouch)

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