



WORKING PAPER

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

PORTABLE ELECTRONIC DEVICES CONTAINING LITHIUM CELLS OR BATTERIES AND SPARE BATTERIES CARRIED BY PASSENGERS OR CREW

(Presented by Q. Xu)

SUMMARY

This paper proposes to amend the provision for portable electronic devices containing lithium cells or batteries and spare batteries carried by passengers or crew in Part 8;1.1.2 s) of the Technical Instructions.

Action by the DGP: The DGP is invited to consider amending the provision of Part 8;1.1.2 s) as presented in the appendix to this working paper.

1. INTRODUCTION

1.1 The provision of Part 8;1.1.2 s) for portable electronic devices containing lithium cells or batteries and spare batteries carried by passengers or crew is as follows:

Consumer articles

...

- s) portable electronic devices (watches, calculating machines, cameras, cellular phones, laptop computers, camcorders, etc.) containing lithium or lithium ion cells or batteries when carried by passengers or crew for personal use, which should be carried as carry-on baggage. 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) and carried in carry-on baggage only. In addition, each installed or spare battery must not exceed the following:

- for lithium metal batteries, a lithium content of not more than 2 grams; or
- for lithium ion batteries, a watt-hour rating of not more than 100 Wh.

With the approval of the operator, lithium ion batteries exceeding a watt-hour rating of 100 Wh but not exceeding 160 Wh may be carried as spare batteries in carry-on baggage or in equipment in either checked or carry-on baggage. No more than two individually protected spare batteries per person may be carried.

1.2 In this provision, there is no mention of turning off the portable devices containing lithium metal or lithium ion cells or batteries, and taking measures to prevent unintentional activation before checking them as checked baggage. We have come across some passengers who forget to turn off such devices before they put them into the checked baggage, which, in fact, might lead to the potential of a dangerous evolution of heat during flight. We believe that it is necessary to state the requirement of turning off such devices and taking measures to prevent unintentional activation before checking them as checked baggage.

1.3 As to the number of spare batteries not exceeding a watt-hour rating of 100wh that the passengers or crew can take with them, there is no detailed requirement except the relevant statement of “for personal use”. Security staff and other relevant staff might be perplexed by it because different persons might have different judgement. We suggest quantifying “for personal use” by stating that two spare batteries for each kind of portable electronic device can be carried in carry-on baggage.

APPENDIX

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 CH 1, US 15; see Table A-1

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1.1 DANGEROUS GOODS CARRIED BY PASSENGERS OR CREW

...

Consumer articles

- s) portable electronic devices (watches, calculating machines, cameras, cellular phones, laptop computers, camcorders, etc.) containing lithium **metal** or lithium ion cells or batteries when carried by passengers or crew for personal use, which should be carried as carry-on baggage. If such devices are checked as checked baggage, they must be turned off and measures must be taken to prevent unintentional activation. Not more than two spare batteries for each kind of portable electronic device per person may be carried, and each of the 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) and carried in carry-on baggage only. In addition, each installed or spare battery must not exceed the following:

- for lithium metal batteries, a lithium content of not more than 2 grams; or
- for lithium ion batteries, a watt-hour rating of not more than 100 Wh.

With the approval of the operator, lithium ion batteries exceeding a watt-hour rating of 100 Wh but not exceeding 160 Wh may be carried as spare batteries in carry-on baggage or in equipment in either checked or carry-on baggage. No more than two individually protected spare batteries per person may be carried.

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