



WORKING PAPER

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

Atlantic City, United States, 4 to 8 April 2011

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 2013-2014 Edition

2.8: Part 8 — Provisions Concerning Passengers and Crew

LITHIUM BATTERIES IN PASSENGER BAGGAGE

(Presented by G A Leach)

SUMMARY

This working paper seeks to require only lithium batteries which have been subjected to the tests of the UN Manual of Tests and Criteria, Part III, section 38.3.

Action by the DGP-WG is in paragraph 2.

1. INTRODUCTION

1.1 Part 8;1.1.2 s) of the Technical Instructions enables passengers and crew to carry lithium batteries and lithium battery powered equipment in their baggage. However, there is no requirement for the batteries to have been subjected to the tests of the UN *Manual of Tests and Criteria*, Part III, section 38.3. Theoretically, it would appear possible for a passenger or crew member to carry lithium batteries of any standard, including counterfeit batteries or those that the passenger has constructed themselves.

1.2 It is suggested that there should be some minimum standard for lithium batteries carried by passengers and crew. Whilst it may not be practical for a passenger or crew member to establish whether a battery has been subjected to the UN tests it is possible for them to ensure they only carry batteries which have been obtained from a reputable source. It is also noteworthy that considerable technical criteria was introduced into Part 8 1.1.2 f) for fuel cells.

2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to replace the existing Part 8;1.1.2 s) as follows:

- 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, subject to the following conditions:
 - 1. 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;
 - 2. each installed or spare battery must not exceed the following:
 - for lithium metal or lithium alloy 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.
 - 3. batteries and cells 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

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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