



WORKING PAPER

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

Memphis, 30 April to 4 May 2007

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 2009/2010 Edition

2.3: Part 3 — Dangerous Goods List and Limited Quantities Exceptions

**PROHIBITION OF LITHIUM METAL BATTERIES ON PASSENGER
AIRCRAFT**

(Presented by R. Richard)

SUMMARY

This paper proposes to forbid the transport of lithium metal batteries on passenger aircraft. Exceptions are proposed for small lithium metal batteries contained in or packed with equipment.

Action by the DGP-WG is in paragraph 2.

1. INTRODUCTION

1.1 At its preceding Working Group of the Whole Meeting, the Panel considered a proposal to forbid the transport of lithium metal batteries on passenger aircraft (see DGP-WG/06-WP/36) based on the inability of standard aircraft fire suppression systems to extinguish a fire involving lithium metal batteries. Exceptions were proposed for small lithium metal batteries contained in or packed with equipment since these pose a significantly reduced risk compared to cargo quantities of batteries. The proposal was supported in principle; however it was agreed to await the outcome of the UN subcommittee of Experts on the Transport of Dangerous Goods' 30th session and any relevant amendments agreed to by the subcommittee.

1.2 At its 30th session, the UN Subcommittee amended Special Provision 188 of the UN Recommendations on the Transport of Dangerous Goods to enhance the packaging and hazard communication requirements for excepted lithium cells and batteries. In addition, new proper shipping names were created for lithium ion batteries to differentiate between lithium metal and lithium ion batteries.

1.3 This revised proposal takes into account the decisions taken by the UN subcommittee at its 30th Session, in particular amendments to Special Provision 188 of the UN Model Regulations and the revision of the lithium battery proper shipping names to differentiate between lithium metal and lithium ion batteries. In addition a new Special Provision is proposed to prohibit the transport of lithium metal batteries on passenger aircraft except when packed with or installed in equipment under specified

conditions. Batteries not meeting the conditions of this Special Provision are proposed to be marked to indicate that they are forbidden for transport aboard passenger aircraft.

2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to take the following actions:

- a) In Table 3-1, for UN 3090, amend Columns 9 and 10 to read “Forbidden”;
- b) In Table 3-1, for UN 3091 (both entries), add “AXX” to Column 7 and amend Columns 9 and 10 to read “Forbidden”;
- c) In Part 3, Chapter 3, amend Special Provision A45 by replacing the first sentence with the following:

A45 Lithium metal cells and batteries are forbidden for transport aboard passenger aircraft except when contained in or packed with equipment in accordance with special provision AXX.

Lithium metal cells and batteries offered for transport aboard cargo aircraft only and lithium ion cells and batteries transported aboard passenger or cargo aircraft are not subject to other provisions of these Instructions if they meet the following:

a) Packages containing lithium metal cells and batteries must be marked “lithium metal batteries — forbidden for transport aboard passenger aircraft”.

ab) For a lithium metal or lithium alloy cell, the lithium content is not more than 1 g, and for a lithium ion cell, the lithium-equivalent content is not more than 1.5 g;

...

Renumber paragraphs b-e and leave the rest of the special provision intact

- d) In Part 3, Chapter 3, add a new special provision AXX as follows:

AXX Lithium metal cells and batteries are forbidden for transport aboard passenger aircraft unless contained in or packed with equipment in accordance with the following:

— cells and batteries must meet the conditions of special provision A45 applicable to lithium metal cells and batteries;

— the package must contain no more than the number of batteries or cells necessary to power the intended piece of equipment; and

— the net weight of the batteries within the package must not exceed 5 kg.

Packages transported in accordance with this special provision need not be marked “lithium metal batteries – forbidden for transport aboard passenger aircraft”.