



WORKING PAPER

DANGEROUS GOODS PANEL (DGP)

TWENTY-FIRST MEETING

Montréal, 5 to 16 November 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

AIRCRAFT SPARES – LITHIUM BATTERIES ON PASSENGER AIRCRAFT

(Presented by D. Brennan)

SUMMARY

This working paper proposes that there be provision for operators to be able to transport, on passenger aircraft, lithium metal batteries required for aircraft equipment.

Action by the DGP is in paragraph 2.

1. INTRODUCTION

1.1 At the Ad Hoc Working Group Meeting on lithium batteries (Montreal, 4 to 5 October 2007), there was again discussion regarding a prohibition on the transport of lithium metal batteries on passenger aircraft.

1.2 On the basis that during the course of DGP/21 that text will be adopted into the 2009-2010 edition of the Technical Instructions that will prohibit lithium metal batteries on passenger aircraft, this paper proposes that an exception be made, through a special provision, for lithium metal batteries used in aircraft components or aircraft equipment to be transported on a passenger aircraft.

1.3 Like the consumer electronics industry, aircraft manufacturers and manufacturers of aircraft equipment are turning to lithium metal and lithium ion technologies to power electronic items. Items such as defibrillators, which are mandatory aircraft equipment, utilise lithium metal batteries. Should such a defibrillator be used during a flight and the battery exhausted the operator may be in a position such that the aircraft equipment no longer meets the applicable operations specifications for passenger operations until a new battery can be fitted to the device.

2. ACTION BY THE DGP

2.1 The DGP is invited to *add* a new special provision Axxx against UN 3090 and UN 3091 which reads as follows:

Axxx Lithium metal batteries (UN 3090) used to power items of aircraft equipment and lithium metal batteries when packed with, or contained in aircraft equipment (UN 3091) may be transported on a passenger aircraft in accordance with Packing Instruction 903, 912 or 918 as applicable, subject to the following conditions:

- a) except when contained in equipment, and notwithstanding the packaging requirements of Packing Instruction 918, the batteries must be packed in one of the metal outer packagings permitted by Packing Instruction 903;
- b) the batteries may only be consigned by an operator, or on behalf of an operator, to replace items that have been used or rendered unserviceable so as to restore the aircraft equipment to the requirements specified by airworthiness and/or operating regulations;
- c) a maximum of two lithium metal batteries may be contained in a package;
- d) a statement “Lithium metal batteries – aircraft equipment in accordance with Special provision Axxx” must be:
 - 1) included on the dangerous goods transport document;
 - 2) marked on the package adjacent to the proper shipping name; and
 - 3) included on the written information to the pilot-in-command.
- e) the dangerous goods transport document must identify that the consignment is acceptable for passenger and cargo aircraft;
- f) the package is not required to bear a “cargo aircraft only” handling label.

2.2 The DGP is invited to *add* a new paragraph 2.4.13 to Part 5 as follows:

2.4.13 Special marking requirements for lithium metal batteries — aircraft equipment

Packages containing lithium metal batteries used to power items of aircraft equipment and lithium metal batteries when packed with, or contained in aircraft equipment prepared for transport on a passenger aircraft in accordance with Special Provision Axxx must be marked “Lithium metal batteries — aircraft equipment in accordance with Special Provision Axxx” adjacent to the proper shipping name on the package.

2.3 The DGP is invited to *add* a new paragraph 4.1.5.8 to Part 5 as follows:

4.1.5.8 Lithium metal batteries

When lithium metal batteries used to power items of aircraft equipment and lithium metal batteries when packed with, or contained in aircraft equipment are being transported on a passenger aircraft in accordance with Special Provision Axxx, the statement “Lithium metal batteries — aircraft equipment in accordance with Special Provision Axxx” must be included in the dangerous goods transport document.

If adopted the existing 4.1.5.8 would be renumbered as 4.1.5.9.

2.4 The DGP is invited to *revise* 7;4.1.1 b) as follows:

4.1.1 The operator of an aircraft in which dangerous goods are to be carried must provide the pilot-in-command, as early as practicable before departure of the aircraft, with accurate and legible written or printed information concerning dangerous goods that are to be carried as cargo.

Note.— This includes information about dangerous goods loaded at a previous departure point and which are to be carried on the subsequent flight.

This information must include the following:

- a) the air waybill number (when issued);
- b) the proper shipping name (supplemented with the technical name(s) if appropriate; see 3;1) and UN Number as listed in these Instructions. When chemical oxygen generators contained in protective breathing equipment (PBE) are being transported under Special Provision A144, the proper shipping name of “oxygen generator, chemical” must be supplemented with the statement “Aircrew protective breathing equipment (smoke hood) in accordance with Special Provision A144”. When lithium metal batteries used to power items of aircraft equipment and lithium metal batteries when packed with, or contained in aircraft equipment are being transported on a passenger aircraft in accordance with Special Provision Axxx, the proper shipping name must be supplemented with the statement “— aircraft equipment in accordance with Special Provision Axxx”.
- c) the class or division, and subsidiary risk(s) corresponding to the subsidiary risk label(s) applied, by numerals, and in the case of Class 1, the compatibility group;

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— END —