



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

2.1 : Part 1 — General

2.2 : Part 2 — Classification

DRY ICE WITH PATIENT SPECIMENS

(Presented by B. Carrara)

SUMMARY

This paper proposes allowance for the transport of dry ice in mail when used as refrigerant for patient specimens in Part 1;2.3.2 a) and proposes inclusions for the text of Part 2;6.3.2.3.6.

Action by the DGP-WG is in paragraph 2.

1. INTRODUCTION

1.1 In Part 1;2.3.2 a), as an exception, the Technical Instructions permit the transport of patient specimens as defined in Part 2;6.3.1.4 provided that they are classified, packed and marked as required by Part 2;6.3.2.3.6.

1.2 Part 1;2.3.2 b) of the Technical Instructions permits the transport of infectious substances assigned to category B (UN 3373) packed in accordance with Packing Instruction 650. In this case, the Technical Instructions allow the use of dry ice as a refrigerant for those substances assigned to UN 3373.

1.3 According to experts from the Brazilian Healthy Ministry, the transport of some substances classified as exempt patient specimens that need a refrigerating method is very common. Some of them may use reusable gel ice packs but others need to use dry ice, such as plasma.

1.4 Since the Technical Instructions have already allowed the usage of dry ice as a refrigerant for UN 3373, it is reasonable to permit the use of dry ice as a refrigerant for patient specimens as defined in Part 2;6.3.1.4.

1.5 On the other hand it is necessary to include text in Part 2;6.3.2.3.6 in order to instruct shippers how to pack dry ice correctly in a triple package required for those patient specimens.

2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to permit carbon dioxide (dry ice) for the transport by mail when it is used as a refrigerant for patient specimens already allowed by Part 1;2.3.2 a) and to make the necessary changes to the text in Part 2;6.3.2.3.6 as shown in the appendices to this working paper.

APPENDIX A

PROPOSED AMENDMENTS TO PART 1 THE TECHNICAL INSTRUCTIONS

Part 1

GENERAL

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Chapter 2

LIMITATION OF DANGEROUS GOODS ON AIRCRAFT

*Parts of this Chapter are affected by State Variations CA 5, CA 9, DQ 3,
FR 6, GB 5, US 2, VC 4; see Table A-1*

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2.3 TRANSPORT OF DANGEROUS GOODS BY POST

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2.3.2 The following dangerous goods may be acceptable in mail for air carriage subject to the provisions of the appropriate national authorities concerned and these Instructions which relate to such material:

- a) patient specimens as defined in 2;6.3.1.4 provided that they are classified, packed and marked as required by 2;6.3.2.3.6 and solid carbon dioxide (dry ice) when used as a refrigerant for patient specimens;
- b) infectious substances assigned to category B (UN 3373) only, when packed in accordance with the requirements of Packing Instruction 650, and solid carbon dioxide (dry ice) when used as a refrigerant for UN 3373; and
- c) radioactive material, the activity of which does not exceed one-tenth of that listed in Part 2, Chapter 7, Table 2-15;
- d) lithium ion batteries contained in equipment (UN 3481) meeting the provisions of Section II of Packing Instruction 967. No more than four cells or two batteries may be mailed in any single package; and
- e) lithium metal batteries contained in equipment (UN 3091) meeting the provisions of Section II of Packing Instruction 970. No more than four cells or two batteries may be mailed in any single package.

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APPENDIX B

PROPOSED AMENDMENTS TO PART 2 THE TECHNICAL INSTRUCTIONS

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Part 2

CLASSIFICATION OF DANGEROUS GOODS

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Chapter 6

CLASS 6 — TOXIC AND INFECTIOUS SUBSTANCES

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6.3.2 Classification of infectious substances

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6.3.2.3.6 Patient specimens for which there is minimal likelihood that pathogens are present are not subject to these Instructions if the specimen is transported in a packaging which will prevent any leakage and which is marked with the words "Exempt human specimen" or "Exempt animal specimen", as appropriate. The packaging must meet the following conditions:

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c) When multiple fragile primary receptacles are placed in a single secondary packaging, they must be either individually wrapped or separated to prevent contact between them.

d) When dry ice is used to keep specimens cold, all applicable requirements of these Instructions must be met. When used, ice or dry ice must be placed outside the secondary packagings or in the outer packaging. Interior supports must be provided to secure the secondary packagings in the original position after the ice or dry ice has dissipated. If ice is used, the outside packaging must be leakproof. If carbon dioxide, solid (dry ice) is used, the packaging must be designed and constructed to permit the release of carbon dioxide gas to prevent a build-up of pressure that could rupture the packagings.

e) The primary receptacle and the secondary packaging must maintain their integrity at the temperature of the refrigerant, if used, as well as the temperatures and the pressures which could result if refrigeration were lost.

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