International Civil Aviation Organization

DGP/24-WP/24
20/8/13

WORKING PAPER

DANGEROUS GOODS PANEL (DGP)

TWENTY-FOURTH MEETING

Montréal, 28 October to 8 November 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

REFRIGERANT MATERIAL WITH PATIENT SPECIMENS

(Presented by B. Carrara)

SUMMARY

This paper proposes instructions for the transport of patient specimens using refrigerant material in Part 2;6.3.2.3.6.

Action by the DGP: The DGP is invited to consider the amendments to Part 2;6.3.2.3.6 and Part 1;2.3.2 a) of the Technical Instructions as presented in the appendix to this working paper.

1. INTRODUCTION

1.1 A proposal was presented at DGP-WG/13 (DGP-WG/13-WP/31) to permit dry ice in the mail when used as a refrigerant for patient specimens.

1.2 The working group showed support for the intent of the proposal but it was felt additional requirements needed to be considered for allowing dry ice in the mail. It was decided that the issue would be discussed at a joint DGP/Universal Postal Union (UPU) meeting (Bern, June 29, 2013).

1.3 Considering that the original proposal presented two significant changes related to the transport of dry ice with patient specimens, it was suggested that they be treated as two separate proposals. The first one was about instructions for packing of refrigerant material with patient specimens and the second one was about allowing dry ice with patient specimens in the mail.

1.4 Since there was insufficient progress on this issue at the DGP/UPU meeting, this paper presents a new proposal to amend Part 2;6.3.2.3.6 and a small editorial amendment to the Part 1;2.3.2 a).

1.5 The intent of the proposal in this paper is not to allow the transport of refrigerant material classified as dangerous goods together with patient specimens by post but rather to provide instructions on how to pack this material in shipments of ice, dry ice or liquid nitrogen used as a refrigerant for patient specimens as cargo.

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APPENDIX

PROPOSED AMENDMENT TO PART 2 OF THE TECHNICAL INSTRUCTIONS

Part 1

GENERAL

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Chapter 2

LIMITATION OF DANGEROUS GOODS ON AIRCRAFT

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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 a), b) and c);

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~~

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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:

a) The packaging must consist of three components:

i) a leakproof primary receptacle(s);

ii) a leakproof secondary packaging; and

iii) an outer packaging of adequate strength for its capacity, mass and intended use, and with at least one surface having minimum dimensions of 100 mm × 100 mm;

b) For liquids, absorbent material in sufficient quantity to absorb the entire contents must be placed between the primary receptacle(s) and the secondary packaging so that, during transport, any release or leak of a liquid substance will not reach the outer packaging and will not compromise the integrity of the cushioning material;

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) The following conditions must be met if refrigerant material is used:

i) when dry ice or liquid nitrogen 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;

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

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