International Civil Aviation Organization

DGP-WG/19-WP/27
5/3/19

WORKING PAPER

DANGEROUS GOODS PANEL (DGP)
WORKING GROUP MEETING (DGP-WG/19)

Montréal, 1 to 5 April 2019

Agenda Item 1: Harmonizing ICAO dangerous goods provisions with UN Recommendations on the Transport of Dangerous Goods

1.2: Develop proposals, if necessary, for amendments to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) for incorporation in the 2021-2022 Edition

MAXIMUM CAPACITY OF METAL RECEPTACLES (AEROSOLS), NON-REFILLABLE (IP.7 & IP.7A)

(Presented by E. Gillett)

SUMMARY

This paper seeks to address an apparent anomaly between the maximum capacity of metal receptacles (aerosols), non-refillable (IP.7 & IP.7A) shown within packing instructions and the maximum design capacity for such inner packagings stated within Part 6, Chapter 3.2.7.

Action by the DGP-WG: The DGP-WG is invited to consider amending the related requirements for inner packagings in the Technical Instructions as shown in the appendix to this working paper.

1. INTRODUCTION

1.1 Working paper DGP-WG/18-WP/10 sought to address an apparent anomaly within the Technical Instructions and its Supplement between the maximum capacity of metal receptacles (aerosols), non-refillable (IP.7 & IP.7A) shown within packing instructions and the maximum design capacity for such inner packagings stated within Part 6;3.2.7.

1.2 Packing Instructions 203 of the Technical Instructions and 203 of the Supplement both state ‘Non-refillable metal aerosols and non-refillable receptacles containing gas (gas cartridges) must not exceed 1 000 mL capacity’. Packing Instruction Y203 states ‘Non-refillable metal aerosols and non-refillable receptacles containing gas (gas cartridges) containing toxic substances must not exceed 120 mL

capacity. All other non-refillable metal aerosols and non-refillable receptacles containing gas (gas cartridges) must not exceed 1 000 mL capacity'.

1.3 Part 6;3.2.7.1 details the requirements for receptacles (aerosols) IP.7 & IP.7A and states 'Maximum capacity must not exceed 820 mL' which does not align to the 1 L limits specified within the applicable Packing Instructions.

1.4 The Report of DGP-WG/18 records that there was support for aligning the quantities, although it was thought that a better approach might be to align the quantity limitations in Part 6 with the 1 000 ml limit established in the packing instructions. It was noted that the 820 mL limit was introduced into the first edition of the Technical Instructions based on industry practices at that time which no longer existed. Whilst manufacturing regulations within Europe and some other regions effectively require the IP.7B standard to be followed, it is understood that other regions such as North and South America have also retained the IP.7 and IP.7A standards but have increased the maximum capacity to 1 L. For example, within the United States of America this is applied by 49CFR § 178.33.

1.5 The Report of DGP-WG/18 also noted that inner packaging codes did not appear in the UN Model Regulations, making their value in the Technical Instructions questionable. The codes IP.7, IP.7A and IP.7B each relate to 'Metal receptacles (aerosols), non-refillable' and allow the additional design and test standards for air transport to be readily identified for each code. The code IP.7C applies to 'Plastic receptacle (aerosols), non-refillable' providing a consistent approach to the use of inner packaging codes for all aerosols. Accordingly, there is no proposal to remove aerosol inner packaging codes from the ICAO Technical Instructions.

2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to consider amending Part 6;3.2.7 of the Technical Instructions as shown in the appendix to this working paper.

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APPENDIX

PROPOSED AMENDMENT TO PART 6 OF THE TECHNICAL INSTRUCTIONS

Chapter 3

REQUIREMENTS FOR PACKAGINGS

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3.2.7 Metal receptacles (aerosols), non-refillable (IP.7, IP.7A, IP.7B)

3.2.7.1 *Receptacles (aerosols) IP.7 and IP.7A*

3.2.7.1.1 *Materials and construction.* Uniform quality steel plate or non-ferrous metal of uniform drawing quality must be used:

— IP.7 receptacles must have a minimum wall thickness of 0.18 mm;
— IP.7A receptacles must have a minimum wall thickness of 0.20 mm.

The receptacles may be seamless or with seams welded, soldered, brazed, double-seamed or swaged. The ends must be of pressure design. Maximum capacity must not exceed ~~820 mL~~ 1 L and the maximum inner diameter must not exceed 76 mm.

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