International Civil Aviation Organization

DGP/29-WP/36
7/9/23

WORKING PAPER

DANGEROUS GOODS PANEL (DGP)

TWENTY-NINTH MEETING

Montréal, 13 to 17 November 2023

Agenda Item 2: Managing air-specific safety risks and identifying anomalies *(Ref: REC A DGS 2025)*

2.2: 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 2025-2026 Edition

ADDITION OF THE DIMENSION OF PACKAGES CONTAINING RADIOACTIVE MATERIALS ON THE DANGEROUS GOODS TRANSPORT DOCUMENT

(Presented by D. Sylvestre)

SUMMARY

This working paper proposes the addition of a requirement for the dimension of packages containing radioactive materials, when a dangerous goods transport document is used.

Action by the DGP: The DGP is invited to modify the wording of Part 4;4.1.5.7 with the addition of a sub-paragraph as shown in the appendix to this working paper.

1. INTRODUCTION

1.1 The determination of the stowage requirements for packages containing radioactive materials of categories II-YELLOW & III-YELLOW is captured in the process of Task 4 — Managing cargo pre-loading of the dangerous goods task list contained in *Guidance on a Competency-based Approach to Dangerous Goods Training and Assessment* (Doc 10147). The dimension of the packages is of prime importance when done remotely or on-site, to ensure that the minimum distance from surface of packages, overpacks and freight containers of radioactive material to the nearest inside surface of passenger cabin or flight deck partitions or floors are respected as described under Part 7;2.9.6.1. The same applies to separations from undeveloped photographic film as described under Part 7;2.9.6.2 and live animals as described under Part 7;2.9.6.3.

1.2 Operators and associations of large aircrafts have been requiring this information on dangerous goods transport documents for years without issues. This said, other operators would also

benefit of this requirement to make the information standardized and easy to find to complete the cargo pre-loading activities. Keeping in mind, the concept of “regulatory stability”, the proposed text is identical to the present text used by a large association.

2. ACTION BY THE DGP

2.1 The DGP is invited to modify the wording of Part 4;4.1.5.7 with the addition of a sub-paragraph as shown in the appendix to this working paper.

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APPENDIX

PROPOSED AMENDMENT TO PART 5 OF THE TECHNICAL INSTRUCTIONS

Part 5

SHIPPER'S RESPONSIBILITIES

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Chapter 4

DOCUMENTATION

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4.1.5.7 Radioactive material

4.1.5.7.1 The following information must be included for each consignment of Class 7 material, as applicable, in the order given:

a) The name or symbol of each radionuclide or, for mixtures of radionuclides, an appropriate general description or a list of the most restrictive nuclides;

+ *Note.— When Table 2-13 is used, refer to 5;4.1.5.8.1 g) for additional information required on the dangerous goods transport document.*

b) A description of the physical and chemical form of the material, or a notation that the material is special form radioactive material or low dispersible radioactive material. A generic chemical description is acceptable for chemical form;

Note.— For empty Type B(U) or Type B(M) packages as specified in the Note to 2;7.2.4.1.1.7, the name or symbol of the radionuclide of the shielding material followed by the physical and chemical form must be included (e.g. U-dep., solid, metal oxide) in which case the indicated radionuclide may differ from the radionuclide(s) authorized in the package design certificate.

c) The maximum activity of the radioactive contents during transport expressed in units of becquerels (Bq) with an appropriate SI prefix symbol (see 1;3.2). For fissile material, the mass of fissile material (or mass of each fissile nuclide for mixtures when appropriate) in units of grams (g), or appropriate multiples thereof, may be used in place of activity;

d) The category of the package and if applicable for the overpack and freight container, as assigned per 1.2.3.1.4, i.e. I-WHITE, II-YELLOW, III-YELLOW;

e) The transport index as determined per 1.2.3.1.1 and 1.2.3.1.2 (except for category I-WHITE);

f) for Category II-Yellow and III-Yellow only: the dimensions including dimensional units of each package, or when placed in an overpack or freight container, the dimensions of the overpack, or the freight container as applicable. The dimensions should be shown in the following order: length x width (or diameter, if applicable) x height. "L", "W" (or "D"), "H" may be shown immediately preceding their respective dimension. When a different order is used, the letters "L", "W" (or "D") and "H" must be shown accordingly;

~~f~~g) For fissile material:

1) shipped under one exception of 2;7.2.3.5.1 a) to f), reference to that paragraph;

2) shipped under 2;7.2.3.5.1 c) to e), the total mass of fissile nuclides;

3) contained in a package for which one of 6;7.10.2 a) to c) or 6;7.10.3 is applied, reference to that paragraph; and

4) the criticality safety index, where applicable.

~~g~~h) The identification mark for each competent authority certificate of approval (special form radioactive material, low dispersible radioactive material, fissile material excepted under 2;7.2.3.5.1 ~~f)~~ g), special arrangement, package design, or shipment) applicable to the consignment;

~~h~~i) For consignments of more than one package, the information contained in 4.1.4.1 a) to c) and 4.1.5.7.1 a) to ~~g)~~ h) must be given for each package. For packages in an overpack or freight container, a detailed statement of the contents of each package within the overpack or freight container and, where appropriate, of each overpack or freight container must be included. If packages are to be removed from the overpack or freight container at a point of intermediate unloading, appropriate transport documents must be made available;

~~i~~j) Where a consignment is required to be shipped under exclusive use, the statement “EXCLUSIVE USE SHIPMENT”; and

~~j~~k) For LSA-II, LSA-III, SCO-I and SCO-II, the total activity of the consignment as a multiple of A_2. For radioactive material for which the A_2 value is unlimited, the multiple of A_2 must be zero.

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