



**DANGEROUS GOODS PANEL (DGP)
MEETING OF THE WORKING GROUP OF THE WHOLE**

Memphis, 30 April to 4 May 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

2.7: Part 7 — Operator's Responsibilities

PASSENGER'S EXPOSURE DOSE LIMIT

(Presented by M. U. Mikhin)

REVISED

SUMMARY

This working paper presents an amendment to Part 7, paragraph 2.9.1.3 relating to limitation of exposure of persons to radiation.

Action by the DGP-WG is in paragraph 2.

1. INTRODUCTION

1.1 In the Technical Instructions, conditions are set for transport in an aircraft. One of the conditions concerns limitation of exposure to radiation for persons. Part 7;2.9.1.3 requires that exposure to radiation be kept as low as reasonably achievable, and sets minimum values based on distances shown in Tables 7-5 and 7-6 and the transport index of the package. There is no practice for airlines to inform passengers that the value of exposure may be different than outside the airplane if radioactive material is on board an aircraft, so many passengers believe that it does not change. If exposure to radiation on a passenger seat is measured, the exposure dose may be more than usual (which varies from 0,00009 m Sv/h on the ground and up to 0,005 m Sv/h at an altitude of 30,000 ft.) and for high TI exposure may reach 0,025 m Sv/h in total, which is possible if the minimum distance is taken in accordance with Tables 7-5 and 7-6. The high increase of exposure is not mentioned to the passenger and such situations may create conflicts with airline or even panic of the passengers.

2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to amend Part 7, paragraph 2.9.1.3 as follows:

Part 7
OPERATOR'S RESPONSIBILITIES

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Chapter 2
STORAGE AND LOADING

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2.9 SPECIAL PROVISIONS APPLICABLE TO THE CARRIAGE
OF RADIOACTIVE MATERIAL

2.9.1 Limitation of exposure of persons to radiation

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2.9.1.3 The practice should be followed of keeping exposure to radiation as low as reasonably achievable. The separation distances shown in Tables 7-5 and 7-6 are minimum values, and greater distances should be used where feasible. As far as possible, packages of radioactive materials stowed in underfloor cargo compartments of passenger aircraft should be placed on the compartment floor. In case of minimum distance, the limit of the exposure dose measured on the passenger seat could be up to a maximum of 0,025 m Sv/h.

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