



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
WORKING GROUP MEETING (DGP-WG/24)**

Montreal, 21 to 25 October 2024

- Agenda Item 2: Managing air-specific safety risks and identifying anomalies (REC-A-DGS-2027)**
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 2027-2028 Edition

SEPARATION OF EXPLOSIVE SUBSTANCES AND ARTICLES

(Presented by the Dangerous Goods Advisory Council (DGAC))

SUMMARY

This working paper is presented to bring the panel's attention to an apparent disparity between the Technical Instructions and its Supplement in respect of the separation of explosive substances and articles.

Action by the DGP-WG: Action by the DGP-WG is in paragraph 2.

1. INTRODUCTION

1.1 Both the Technical Instructions and its Supplement contain tables identifying those explosive substances and articles which are required to be separated during air transport. Table 7-2 of the Technical Instructions addresses those substances permitted for carriage in normal circumstances, whilst Table S-7-1 of the Supplement is expanded to address all explosives. It has been noted that the two tables are not in alignment (see below).

Table 7-2 of the Technical Instructions:**Table 7-2. Separation of explosive substances and articles**

<i>Division and compatibility group</i>	1.3C	1.3G	1.4B	1.4C	1.4D	1.4E	1.4G	1.4S
1.3C			x					
1.3G			x					
1.4B	x	x		x	x	x	x	
1.4C			x					
1.4D			x					
1.4E			x					
1.4G			x					
1.4S								

An “x” at the intersection of a row and column indicates that explosives of these divisions and compatibility groups must be loaded into separate unit load devices and, when stowed aboard the aircraft, the unit load devices must be separated by other cargo with a minimum separation distance of 2 m. When not loaded in a unit load device, these explosives must be loaded into different, non-adjacent loading positions and separated by other cargo with a minimum separation distance of 2 m.

Table S-7-1 of the Supplement to the Technical Instructions:**Table S-7-1. Separation of explosive substances and articles**

<i>Compatibility group</i>	A	B	C	D	E	F	G	H	J	K	L	N	S
A		x	x	x	x	x	x	x	x	x	x	x	x
B	x		x	x	x	x	x	x	x	x	x	x	
C	x	x				x	x	x	x	x	x	x	
D	x	x				x	x	x	x	x	x	x	
E	x	x				x	x	x	x	x	x	x	
F	x	x	x	x	x		x	x	x	x	x	x	
G	x	x	x	x	x	x		x	x	x	x	x	
H	x	x	x	x	x	x	x		x	x	x	x	
J	x	x	x	x	x	x	x	x		x	x	x	
K	x	x	x	x	x	x	x	x	x		x	x	
L	x	x	x	x	x	x	x	x	x	x	1)	x	x
N	x	x	x	x	x	x	x	x	x	x	x		
S	x										x		

1.2 The explanation of “x” is detailed in paragraph 2.3.6 of the Supplement as:

An “x” at the intersection of a row and column indicates that explosives of these compatibility groups must be separated. The method of separation (e.g. the minimum distance between incompatible explosives and/or separation of incompatible explosives with other cargo) must be approved by the competent authority, taking into account the danger of transmission of detonation between the different explosives.

1.3 It will be seen in the Technical Instructions that explosives of compatibility letters C, D and E may be loaded together with those of compatibility letter G, whilst in the Supplement separation is required.

1.4 After reviewing 7.1.3.1.2 to 7.1.3.1.6, and in particular 7.1.3.1.2(c) of the UN Modal Regulations, it is suggested Table S-7-1 in the Supplement correctly reflects those UN provisions and that Table 7-2 in the Technical Instructions should be amended to align.

2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to amend Table 7-2 in the Technical Instructions as presented in the appendix to this working paper.

APPENDIX

PROPOSED AMENDMENT TO PART 7 OF THE TECHNICAL INSTRUCTIONS

Part 7

OPERATOR'S RESPONSIBILITIES

...

Chapter 2

STORAGE AND LOADING

...

Table 7-2. Separation of explosive substances and articles

<i>Division and compatibility group</i>	1.3C	1.3G	1.4B	1.4C	1.4D	1.4E	1.4G	1.4S
1.3C		x	x				x	
1.3G	x		x	x	x	x		
1.4B	x	x		x	x	x	x	
1.4C		x	x				x	
1.4D		x	x				x	
1.4E		x	x				x	
1.4G	x		x	x	x	x		
1.4S								

An "x" at the intersection of a row and column indicates that explosives of these divisions and compatibility groups must be loaded into separate unit load devices and, when stowed aboard the aircraft, the unit load devices must be separated by other cargo with a minimum separation distance of 2 m. When not loaded in a unit load device, these explosives must be loaded into different, non-adjacent loading positions and separated by other cargo with a minimum separation distance of 2 m.

— END —