



**WORKING PAPER**

**DANGEROUS GOODS PANEL (DGP)**

**TWENTY-SIXTH MEETING**

**Montréal, 16 to 27 October 2017**

**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 2019-2020 Edition**

**ACCESSIBILITY OF ENGINES LOADED ON CARGO AIRCRAFT**

(Presented by D. Brennan)

**SUMMARY**

This working paper proposes the removal of the requirement that UN 3528 and UN 3529 be accessible to the crew, or in a Class C compartment, when loaded on a cargo aircraft.

**Action by the DGP:** The DGP is invited to consider the revisions to Part 7;2.4.1.2 as shown in the appendix to this working paper.

**1. INTRODUCTION**

1.1 The 2017-2018 Edition of the Technical Instructions includes changes to the classification of engines following adoption of changes from the 19<sup>th</sup> revised edition of the UN Model Regulations.

1.2 As a consequence of the change to the classification of engines from Class 9 to Division 2.1 for UN 3529 and Class 3 for UN 3528, these engines are now subject to the conditions set out in Part 7;2.4.1.1 when consigned as a cargo aircraft only and must be loaded onto a cargo aircraft either accessible to flight crew during flight, or loaded into a Class C cargo compartment.

1.3 Prior to 2017, engines were classified in Class 9, and consequently were not subject to the loading restrictions on a cargo aircraft. For large aircraft engines, this allow for the engine to be loaded with only the aircraft weight and balance to be considered as the limiting factor. Typically this will have the engine loaded on the main deck near the aircraft centre of gravity along the aircraft centre line. In this loading position it is very likely that the engine will no longer be accessible to the flight crew during flight.

1.4 Given that prior to 2017 there was no need to have aircraft engines, or other engines, accessible to the flight crew when carried on a cargo aircraft it is proposed to include UN 3528 and UN 3529 into the list of exceptions from accessibility in Part 7;2.4.1.2.

**2. ACTION BY THE DGP**

2.1 The DGP is invited to agree to the proposal to modify Part 7;2.4.1.2 as shown in the appendix to this working paper.

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APPENDIX

PROPOSED AMENDMENT TO PART 7 OF THE TECHNICAL INSTRUCTIONS

Part 7

OPERATOR'S RESPONSIBILITIES

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Chapter 2

STORAGE AND LOADING

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2.4 LOADING AND SECURING OF DANGEROUS GOODS

2.4.1 Loading of cargo aircraft

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≠ 2.4.1.2 The requirements of 2.4.1.1 a), b or c) do not apply to:

- a) flammable liquids (Class 3), Packing Group III, other than those with a subsidiary risk of Class 8;
- b) toxic substances (Division 6.1) with no subsidiary risk other than Class 3;
- c) infectious substances (Division 6.2);
- d) radioactive material (Class 7);
- e) miscellaneous dangerous goods (Class 9);

f) UN 3528 — Engine, internal combustion, flammable liquid powered or Engine, fuel cell, flammable liquid powered or Machinery, internal combustion, flammable liquid powered or Machinery, fuel cell, flammable liquid powered;

g) UN 3529 — Engine, internal combustion, flammable gas powered or Engine, fuel cell, flammable gas powered or Machinery, internal combustion, flammable gas powered or Machinery, fuel cell, flammable gas powered;

*Note — When transporting goods in a non-pressurized cargo hold, there will be a large pressure differential up to 75 kPa at cruise altitudes. Packages that are filled at a normal atmospheric pressure may not be capable of withstanding this pressure differential. Confirmation of the suitability of the packagings from the shipper should be obtained.*

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