



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
WORKING GROUP MEETING (DGP-WG/26)**

Centurion, South Africa, 26 to 30 October 2026

- Agenda Item 2: Managing air-specific safety risks and identifying anomalies (REC-A-DGS-2029)**
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 2029-2030 Edition

PORTABLE GROUND POWER UNITS FOR AIRPLANES AND HELICOPTERS

(Presented by D. Sylvestre)

SUMMARY

With the introduction of new restrictions aimed at lithium cells or batteries (including power banks) in the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284), carried aboard an aircraft by the operator for use on the aircraft during the flight or series of flights, an issue has appeared for portable ground power unit's starters which are often transported onboard small airplanes and helicopters. This paper proposes a potential solution to allow them to continue being transported.

Action by the DGP-WG is in paragraph 2.

1. INTRODUCTION

1.1 Portable ground power unit's starters for airplanes and helicopters function as compact, lightweight ground power units (GPUs) or carry-on jump packs designed to safely supply high-cranking current for starting cold engine and turbine spooling. Because standard aircraft use distinct 12V/14V systems (mostly light general aviation) or 24V/28V systems (turbines, turboprops, and most helicopters), selecting the correct voltage and connector type is critical to prevent damaging sensitive onboard avionics. These usually have a nominal voltage of 28V and an ampere-hours rating of 10Ah, 15Ah, or 20Ah. Therefore, the resulting Watt-hour (Wh) rating will start at 280 Wh., well above the 100 Wh limit.

EXAMPLES OF PORTABLE GROUND POWER UNITS

“Start Pac” with a rating of 677 Wh



“Start Stick” with a rating of 282 Wh

1.2 The issue is that in the revised text in Part 1, 2.2.2 c) 2) states:

2.2.2 The following conditions must be met for lithium cells or batteries (including power banks) and the devices they power referred to in 2.2.1 b) and e):

- a) spare lithium batteries and power banks must be individually protected so as to prevent short circuits when not in use;
- b) measures must be taken to prevent unintentional activation of the portable electronic devices; and
- c) the batteries must:
 - 1) be of a type which meets the requirements of each test in the UN *Manual of Tests and Criteria*, Part III, subsection 38.3; and
 - 2) for lithium metal batteries, not exceed a lithium content of 2 g and for lithium ion batteries, not exceed a Watt-hour rating of 100 Wh.

1.3 This limit of 100 Wh, would therefore prevent the transport and use of portable lithium battery starters for airplanes & helicopters, which are widely used in the industry.

2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to consider the addition of new text under Part 1;2.2.2 c) 2) of the Technical Instructions, to permit the transport and use of portable lithium battery starters, as presented in the appendix to this working paper. Note the addition of the qualification “for aircraft” to avoid any devices not designed for use on aircraft.

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APPENDIX

AMENDMENT TO THE TECHNICAL INSTRUCTIONS

PART 1

GENERAL

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Chapter 2

LIMITATION OF DANGEROUS GOODS ON AIRCRAFT

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2.2 EXCEPTIONS FOR DANGEROUS GOODS OF THE OPERATOR

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2.2.2 The following conditions must be met for lithium cells or batteries (including power banks) and the devices they power referred to in 2.2.1 b) and e):

- a) spare lithium batteries and power banks must be individually protected so as to prevent short circuits when not in use;
- b) measures must be taken to prevent unintentional activation of the portable electronic devices; and
- c) the batteries must:
 - 1) be of a type which meets the requirements of each test in the UN *Manual of Tests and Criteria*, Part III, subsection 38.3; and
 - 2) for lithium metal batteries, not exceed a lithium content of 2 g and for lithium ion batteries, not exceed a Watt-hour rating of 100 Wh, except for portable ground power units intended for use as starting devices for the aircraft.

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