



**WORKING PAPER**

**DANGEROUS GOODS PANEL (DGP)**

**TWENTY-EIGHTH MEETING**

**Virtual, 15 to 19 November 2021**

**Agenda Item 4: Managing safety risks posed by the carriage of lithium batteries by air (Ref: Job Card DGP.003.03)**

**REQUIREMENT FOR DEVICES CONTAINING LITHIUM BATTERIES TO BE SWITCHED OFF WHEN OFFERED FOR TRANSPORT AS CARGO**

(Presented by S. Schwartz)

**SUMMARY**

This working paper proposes to amend Packing Instructions 967 and 970 of the Technical Instructions to require devices with installed lithium batteries to be switched off when offered for transport. This proposal would except radio frequency identification (RFID) tags, watches and temperature loggers that are in use during transport from the requirement.

**Action by the DGP:** The DGP-WG is invited to consider the amendments detailed in the appendix to this working paper.

**1. INTRODUCTION**

1.1 Packing Instructions 967 and 970 of the Technical Instructions, applicable to lithium ion batteries installed in equipment (UN3481) and lithium metal batteries installed in equipment (UN3091), require that electronic devices be prevented against accidental operation or activation, but there is no restriction on shippers intentionally leaving the devices on during transport.

1.2 It is recognized that devices in use represent more of a risk in transport than those switched off as evidenced by a requirement to switch off electronic devices in checked passenger baggage. It is therefore proposed to amend Packing Instructions 967 and 970 of the Technical Instructions to require devices with installed lithium batteries to be switched off when offered for transport as cargo. Since radio frequency identification (RFID) tags, watches and temperature loggers are specifically allowed to be in use if they comply with provisions of Section II of Packing Instruction 967, these are proposed to be excepted from the requirement if they are in use during transport.

2. **ACTION BY THE DGP**

2.1 The DGP-WG is invited to consider the amendments detailed in the appendix to this working paper.

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APPENDIX

PROPOSED AMENDMENT TO PART 4 OF THE TECHNICAL INSTRUCTIONS

Part 4

PACKING INSTRUCTIONS

Chapter 11

CLASS 9 — MISCELLANEOUS DANGEROUS GOODS

Packing Instruction 967

Passenger and cargo aircraft for UN 3481 (contained in equipment) only

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I. SECTION I

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I.2 Additional requirements

- The equipment must be secured against movement within the outer packaging, be completely switched off (not in sleep or hibernation mode) and be packed so as to prevent accidental operation during air transport.
- The equipment must be packed in strong rigid outer packagings constructed of suitable material of adequate strength and design in relation to the packaging's capacity and its intended use unless the battery is afforded equivalent protection by the equipment in which it is contained.
- Batteries manufactured after 31 December 2011 must be marked with the Watt-hour rating on the outside case.

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II. SECTION II

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II.1 General requirements

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II.2 Additional requirements

- The equipment must be:
  - ~~—~~ secured against movement within the outer packaging; ~~and~~
  - ~~—~~ except for radio frequency identification (RFID) tags, watches and temperature loggers performing their intended function during transport, completely switched off (not in sleep or hibernation mode); and ~~must~~ be
  - ~~—~~ equipped with an effective means of preventing accidental activation.

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## Packing Instruction 970

Passenger and cargo aircraft for UN 3091 (contained in equipment) only

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### I. SECTION I

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#### I.2 Additional requirements

- The equipment must be secured against movement within the outer packaging, be completely switched off (not in sleep or hibernation mode) and must be equipped with an effective means of preventing accidental activation.
- The equipment must be packed in strong rigid outer packagings constructed of suitable material of adequate strength and design in relation to the packaging's capacity and its intended use unless the battery is afforded equivalent protection by the equipment in which it is contained.
- The quantity of lithium metal contained in any piece of equipment must not exceed 12 g per cell and 500 g per battery.

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### II. SECTION II

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#### II.2 Additional requirements

- The equipment must be:
  - ~~—~~ secured against movement within the outer packaging;
  - ~~—~~ except for radio frequency identification (RFID) tags, watches and temperature loggers performing their intended function during transport, completely switched off (not in sleep or hibernation mode); and must
  - ~~be~~;
  - ~~—~~ equipped with an effective means of preventing accidental activation.

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