



**WORKING PAPER**

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

**Rio de Janeiro, Brazil, 20 to 24 October 2014**

**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 2017-2018 Edition**

**2.4: Part 4 — Packing Instructions**

**LABELLING OF OVERPACKS CONTAINING LITHIUM BATTERIES**

(Presented by B. Carrara)

**SUMMARY**

This working paper proposes clarification on the requirements for labelling overpacks containing lithium batteries in equipment.

**Action by the DGP-WG:** The DGP-WG is invited to revise Packing Instructions 967 and 970 as shown in the appendix to this working paper.

**1. INTRODUCTION**

1.1 There are currently two packing instructions in the Technical Instructions that apply to lithium batteries contained in equipment.

1.1.1 The transport of UN 3481 — **Lithium ion batteries contained in equipment** must be in accordance with the requirements of Packing Instruction 967 (Packing Instruction 967).

1.1.2 The transport of UN 3091 — **Lithium metal batteries contained in equipment** must be in accordance with the requirements of Packing Instruction 970 (Packing Instruction 970).

1.2 Both Packing Instruction 967 and 970 have similar Section II requirements. Paragraph II.2 requires that each package that contains more than four cells or more than two batteries installed in equipment must be labelled with a lithium battery handling label (Figure 5-32) (except button cell batteries installed in equipment (including circuit boards)).

1.2.1 It means that one package that contains four cells or less or two batteries or less does not need to be labelled with a lithium battery handling label.

1.3 Paragraph II.2 also requires that:

1.3.1 Each consignment with packages bearing the lithium battery handling label must be accompanied with a document with an indication that:

- a) the package contains lithium ion/metal cells or batteries;
- b) the package must be handled with care and that a flammability hazard exists if the package is damaged;
- c) special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and
- d) a telephone number for additional information.

1.3.2 Where a consignment includes packages bearing the lithium battery handling label, the words “lithium ion batteries, in compliance with Section II of Packing Instruction 967” or “lithium metal batteries, in compliance with Section II of Packing Instruction 970” must be placed on the air waybill, when an air waybill is used.

1.4 Paragraph II.4 requires that when packages are placed in an overpack, the lithium battery handling label required by Packing Instruction 967 and Packing Instruction 970 must either be clearly visible or the label must be affixed on the outside of the overpack and the overpack must be marked with the word “Overpack”.

1.4.1 Based on the above, an overpack that contains several packages each one with four cells or less or two batteries or less does not need to be labelled with the lithium battery handling label.

1.5 Therefore, the shipper may consign packages with lithium batteries contained in equipment in two different ways, both correct according to the Technical Instructions:

- a) Considering that each package containing four cells or less or two batteries or less does not need to be labelled with the lithium battery handling label, an overpack with several packages in that condition does not need to be labelled with the lithium battery handling label either and, consequently, does not need to comply with the requirements of paragraph II.2 presented in paragraph 1.3 of this paper; or
- b) Packing in the same way, an overpack might also be considered as an outer package that contains more than four cells or more than two batteries installed in equipment, so it must be labelled with the handling label. In this case, all requirements in paragraph II.2 presented in paragraph 1.3 of this paper must be complied with.

1.6 This dual possibility to ship exactly the same consignment may raise doubts during acceptance procedures by the operator and during inspections by the civil aviation administration (CAA).

1.7 It is understood that Section II of Packing Instructions 967 and 970 exists to facilitate the transport of this equipment considering a small amount of lithium batteries that could represent a minimum risk during air transport. However, the decision of using a lithium battery handling label or not should not be made by the shipper as it is in the current version of the Technical Instructions.

1.8 This paper proposes an amendment to Section II of Packing Instructions 967 and 970 in order to require a lithium battery handling label on overpacks containing a total of more than four cells or more than two batteries with a lithium battery handling label (Figure 5-31).

2. **ACTION BY THE DGP-WG**

2.1 The DGP-WG is invited to revise Packing Instructions 967 and 970 as shown in the appendix to this working paper.

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APPENDIX

PROPOSED AMENDMENT TO PART 4 OF THE TECHNICAL INSTRUCTIONS

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Part 4

PACKING INSTRUCTIONS

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Chapter 11

CLASS 9 — MISCELLANEOUS DANGEROUS GOODS

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Packing Instruction 967

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

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II. SECTION II

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II.2 Additional requirements

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- Each package containing more than four cells or more than two batteries installed in equipment must be labelled with a lithium battery handling label (Figure 5-32) (except button cell batteries installed in equipment (including circuit boards)).
- Each consignment with packages bearing the lithium battery handling label must be accompanied with a document with an indication that:
  - the package contains lithium ion cells or batteries;
  - the package must be handled with care and that a flammability hazard exists if the package is damaged;
  - special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and
  - a telephone number for additional information.
- Where a consignment includes packages bearing the lithium battery handling label, the words “lithium ion batteries, in compliance with Section II of PI967” must be placed on the air waybill, when an air waybill is used.
- Any person preparing or offering cells or batteries for transport must receive adequate instruction on these requirements commensurate with their responsibilities.

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II.4 Overpacks

When packages are placed in an overpack, the lithium battery handling label required by this packing instruction (Figure 5-32) must either be clearly visible or the label must be affixed on the outside of the overpack if the overpack contains more than four cells or more than two batteries inside (except button cell batteries installed in equipment (including circuit boards)), and the overpack must be marked with the word “Overpack”.

## Packing Instruction 970

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

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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 and must be equipped with an effective means of preventing accidental activation.
- Cells and batteries must be protected so as to prevent short circuits.
- The equipment must be packed in strong 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.
- Each package containing more than four cells or more than two batteries installed in equipment must be labelled with a lithium battery handling label (Figure 5-32) (except button cell batteries installed in equipment (including circuit boards)).
- Each consignment with packages bearing the lithium battery handling label must be accompanied with a document with an indication that:
  - the package contains lithium metal cells or batteries;
  - the package must be handled with care and that a flammability hazard exists if the package is damaged;
  - special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and
  - a telephone number for additional information.
- Where a consignment includes packages bearing the lithium battery handling label, the words "lithium ion batteries, in compliance with Section II of PI970" must be placed on the air waybill, when an air waybill is used.
- Any person preparing or offering cells or batteries for transport must receive adequate instruction on these requirements commensurate with their responsibilities.

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#### II.4 Overpacks

When packages are placed in an overpack, the lithium battery handling label ~~required by this packing instruction (Figure 5-32)~~ must either be clearly visible or the label must be affixed on the outside of the overpack. if the overpack contains more than four cells or more than two batteries inside (except button cell batteries installed in equipment (including circuit boards)). ~~and~~ The overpack must be marked with the word "Overpack".

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