



WORKING PAPER

DANGEROUS GOODS PANEL (DGP)

TWENTY-NINTH MEETING

Montréal, 13 to 17 November 2023

Agenda Item 2: Managing air-specific safety risks and identifying anomalies (*Ref: REC A DGS 2025*)

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 2025-2026 Edition

AMENDMENT TO PACKING INSTRUCTION 952 TO CORRECT PUBLICATION ERROR

(Presented by the Secretary)

SUMMARY

An amendment to the lithium battery provisions contained in the packing instructions for vehicles and battery-powered vehicles or equipment was agreed at DGP/28 to remove an inconsistency with respect to States involved in the approval process for shipping untested battery types in vehicles or equipment (see paragraph 4.12 of the DGP/28 Report). The packing instructions in the 2021-2022 Edition of the Technical Instructions required an approval from the appropriate national authority of the State of Origin, while Special Provision A88 required an approval from the State of Origin and the State of the Operator. DGP/28 agreed to amend the packing instructions to align with Special Provision A88. However, the original text was inadvertently not struck out in Packing Instruction 952 in the DGP/28 Report and now appears in the 2023-2024 Edition. The amendment presented in the appendix to this working paper corrects this error.

Action by the DGP-WG: The DGP-WG is invited to agree to the amendment presented in the appendix to this working paper.

1. INTRODUCTION

1.1 An amendment to the lithium battery provisions contained in the packing instructions for vehicles and battery-powered vehicles or equipment was agreed at the twenty-eighth meeting of the Dangerous Goods Panel (DGP) (DGP/28, 15 to 19 November 2021) to remove an inconsistency with respect to States involved in the approval process for shipping untested battery types in vehicles or equipment (see paragraph 4.12 of the DGP/28 Report). The packing instructions in the 2021-2022 Edition

of the Technical Instructions required an approval from the appropriate national authority of the State of Origin, while Special Provision A88 required an approval from the State of Origin and the State of the Operator. DGP/28 agreed to amend the packing instructions to align with Special Provision A88. However, the original text was inadvertently not struck out in Packing Instruction 952 in the DGP/28 Report and now appears in the 2023-2024 Edition. The amendment presented in the appendix to this working paper corrects this error.

2. ACTION BY THE DGP

2.1 The DGP is invited to agree to the amendment presented in the appendix to this working paper.

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APPENDIX

AMENDMENT TO PACKING INSTRUCTION 952

Packing Instruction 952

Passenger and cargo aircraft for UN 3171 only

(See Packing Instruction 220 for flammable gas-powered engines and machinery, Packing Instruction 378 for flammable liquid-powered engines and machinery, Packing Instruction 950 for flammable liquid-powered vehicles, Packing Instruction 951 for flammable gas-powered vehicles or Packing Instruction 972 for engines or machinery containing only environmentally hazardous fuels)

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ADDITIONAL PACKING REQUIREMENTS

This entry applies to vehicles and equipment which are powered by wet batteries, sodium batteries or lithium batteries and which are transported with these batteries installed. Examples of such vehicles and equipment are electrically-powered cars, lawn mowers, wheelchairs and other mobility aids. Vehicles that also contain an internal combustion engine must be consigned under the entry UN 3166 Vehicle (flammable gas powered) (See Packing Instruction 951) or Vehicle (flammable liquid powered) (See Packing Instruction 950), as appropriate.

Where vehicles could possibly be handled in other than an upright position, the vehicle must be secured in a strong, rigid outer packaging of the type below. The vehicle must be secured by means capable of restraining the vehicle in the outer packaging to prevent any movement during transport which would change the orientation or cause the vehicle to be damaged.

Battery-powered vehicles, machines or equipment must meet the following requirements:

Batteries

All batteries must be installed and securely fastened in the battery holder of the vehicle, machine or equipment and must be protected in such a manner so as to prevent damage and short circuits. In addition:

- 1) If spillable batteries are installed, and it is possible for the vehicle, machine or equipment to be handled in such a way that batteries would not remain in their intended orientation, they must be removed and packed according to Packing Instruction 492 or 870 as applicable.
- 2) If lithium batteries are installed:
 - i) lithium batteries identified as being damaged or defective in accordance with Special Provision A154 are forbidden for transport; and
 - ii) lithium batteries must meet the provisions of Part 2;9.3, except that pre-production prototypes of lithium batteries or cells, when these prototypes are transported for testing, or low production runs of lithium batteries or cells that have not been tested to the requirements in Part III, subsection 38.3 of the UN *Manual of Tests and Criteria* may be transported aboard cargo aircraft if approved by the appropriate authority of the State of Origin and the State of the Operator. A copy of the document of approval must accompany the consignment.
 - iii) Where the lithium battery is removed from the vehicle and is packed separate from the vehicle in the same outer packaging, the package must be consigned as UN 3481— **Lithium ion batteries packed with equipment** or UN 3091 — **Lithium metal batteries packed with equipment** and packed according to Packing Instruction 966 or 969, as applicable.
- 3) If sodium batteries are installed they must conform to the requirements of Special Provision A94.

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