International Civil Aviation Organization



DGP/29-WP/27 8/9/23

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

DELETION OF THE CONDITION OF "DANGEROUS EVOLUTION OF HEAT" FROM SPECIAL PROVISIONS A67, A123 AND A199

(Presented by D. Brennan)

SUMMARY

This working paper proposes the deletion of the condition "dangerous evolution of heat" from Special Provisions A67, A123 and A199 as it is believed that the condition can be seen as only applying to certain batteries, whereas it believed that the requirements set out in the special provisions apply at all times.

Action by the DGP is in paragraph 2.

1. **INTRODUCTION**

1.1 At the DGP Working Group Meeting held in Rio de Janeiro, Brazil from 15 to 19 May 2023 (DGP-WG/23) there was discussion on the condition "potential of a dangerous evolution of heat" as it appears in Special Provisions A67, A123, A154, A164 and A199 (see paragraph 4.2.2.1 of the DGP-WG/23 report).

1.2 The issue raised at DGP-WG/23 is that in these special provisions the condition is that some shippers interpret that when their electrical battery or battery-powered device, equipment or vehicle does not have the "potential of a dangerous evolution of heat", that their products are then not subject to the Technical Instructions, and therefore none of the other requirements in the special provision apply, including the need to pack the batteries so that short circuit is prevented and the inclusion of the words "not restricted" and the special provision number on the air waybill, when an air waybill is used.

1.3 In the discussion at DGP-WG/23, there was some agreement that the condition that batteries "having the potential for a dangerous evolution of heat" could be deleted from some of the special provisions but that this condition in others was valid.

1.4 It is believed that the inclusion of the condition "dangerous evolution of heat" is misleading in Special Provisions A67, A123 and A199 as all batteries and equipment containing batteries against which these special provisions are assigned must comply with the requirements for prevention of short circuit and unintentional activation and when an air waybill is used the special provision number and "not restricted" must be indicated.

1.5 Based on this it is proposed to remove the words "having the potential for a dangerous evolution of heat" from Special Provisions A67, A123 and A199.

2. ACTION BY THE DGP

2.1 The DGP is invited to amend the wording of Special Provisions A67, A123 and A199 as shown in the appendix to this working paper.

APPENDIX

PROPOSED AMENDMENT TO PART 3 OF THE TECHNICAL INSTRUCTIONS

Part 3

DANGEROUS GOODS LIST, SPECIAL PROVISIONS AND LIMITED AND EXCEPTED QUANTITITES

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Chapter 3

SPECIAL PROVISIONS

Table 3-2.Special provisions

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 A67
 (≈238) Batteries can be considered as non-spillable provided that they are capable of withstanding the vibration and pressure differential tests given below, without leakage of battery fluid.

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Non-spillable batteries are not subject to these Instructions when carried as cargo if, at a temperature of 55°C, the electrolyte will not flow from a ruptured or cracked case. The battery must not contain any free or unabsorbed liquid. Any electrical battery or battery powered device, equipment or vehicle having the potential of dangerous evolution of heat must be prepared for transport so as to prevent:

- a) a short circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals); and
- b) unintentional activation.

The words "not restricted" and the special provision number A67 must be provided on the air waybill when an air waybill is issued.

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- A123 This entry applies to Batteries, electric storage, not otherwise listed in Table 3-1. Examples of such batteries are: alkali-manganese, zinc-carbon and nickel-cadmium batteries. Any electrical battery or battery-powered device, equipment or vehicle having the potential of a dangerous evolution of heat must be prepared for transport so as to prevent:
 - a) a short circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals); and
 - b) unintentional activation.

The words "not restricted" and the special provision number A123 must be provided on the air waybill when an air waybill is issued.

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A199		Nickel-metal hydride batteries or nickel-metal hydride battery-powered devices, equipment or vehicles having the potential of a dangerous evolution of heat are not subject to these Instructions provided they are prepared for transport so as to prevent:
		a) a short circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals, or, in the case of equipment, by disconnection of the battery and protection of exposed terminals); and
		b) unintentional activation.
		The words "not restricted" and the special provision number A199 must be provided on the air waybill when an air waybill is issued.

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