International Civil Aviation Organization

WORKING PAPER

DANGEROUS GOODS PANEL (DGP)

TWENTY-SEVENTH MEETING

Montréal, 16 to 20 September 2019

Agenda Item 2:   Managing air-specific safety risks and identifying anomalies
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 2021-2022 Edition

REVISIONS TO THE PROVISIONS FOR PORTABLE ELECTRONIC DEVICES CAPABLE OF GENERATING EXTREME HEAT, WHICH COULD CAUSE A FIRE IF ACTIVATED CONTAINED IN TABLE 8-1

(Presented by Aidong Song)

SUMMARY

This working paper proposes revisions to the entry for portable electronic devices capable of generating extreme heat, which could cause a fire if activated contained in Table 8-1.

Action by the DGP: The DGP is invited to consider the amendment proposed as shown in the appendix to this working paper.

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1.   **INTRODUCTION**

1.1   It is clearly stipulated that dangerous goods cannot be carried by passengers or crew unless they are permitted in accordance with Table 8-1 in Part 8;1.1.1 of the Technical Instructions：

> "1.1.1   Passengers or crew are forbidden to carry dangerous goods either as or in carry-on baggage, checked baggage or on their person unless the dangerous goods are:
>
> a)   permitted in accordance with Table 8-1; and
>
> b)   for personal use only."

1.2   Some revisions were made to Table 8-1 in the 2019-2020 Edition of the Technical Instructions to facilitate the application. The entry for portable electronic devices capable of generating extreme heat, which could cause a fire if activated, is included in 1) Lithium batteries (including portable electronic devices). However, investigations have revealed that some devices on the market are also

powered by batteries other than lithium batteries. For example, lead-acid batteries are used due to the advantage of large discharging current. If such devices are not listed in Table 8-1, they may not be carried.

1.3   Therefore, it is proposed to add item 5) Portable electronic devices capable of generating extreme heat, which could cause a fire if activated (powered by other than lithium battery) in Table 8-1. Carriage of such devices should require the approval of the operator. It should also be required that batteries and heating elements be isolated and the batteries carried as carry-on baggage.

2.   **ACTION BY THE DGP**

2.1   The DGP is invited to consider the revision to Table 8-1 as shown in the appendix to this working paper.

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APPENDIX

PROPOSED AMENDMENT TO PART 8 OF THE TECHNICAL INSTRUCTIONS

Part 8

PROVISIONS CONCERNING PASSENGERS AND CREW

Chapter 1

PROVISIONS FOR DANGEROUS GOODS CARRIED BY PASSENGERS OR CREW

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1.1 DANGEROUS GOODS CARRIED BY PASSENGERS OR CREW

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Table 8-1.   Provisions for dangerous goods carried by passengers or crew

	Location		Approval of the operator(s) is required	
Dangerous Goods	Checked baggage	Carry-on baggage		*Restrictions*
Batteries				
1) Lithium batteries (including portable electronic devices)	Yes (except for g) and h))	Yes	(see c) and d))	. . . f) batteries and heating elements must be isolated in portable electronic devices capable of generating extreme heat, which could cause a fire if activated, by removal of the heating element, battery or other components ~~with the approval of the operator.~~; . . .
. . .				
5) Portable electronic devices capable of generating extreme heat, which could cause a fire if activated (powered by other than lithium battery)	Yes	Yes	Yes	a) batteries and heating elements must be isolated from each other by the removal of the heating element, battery or another components; and b) any battery which has been removed must be carried as carry-on baggage and protected against short circuit (by placement in original retail packaging or by otherwise insulating terminals, e.g. by taping over exposed terminals or placing each battery in a separate plastic bag or protective pouch).
Renumber the entries in Table 8-1 accordingly				
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