



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

**PROVISIONS FOR BATTERY-POWERED EQUIPMENT CAPABLE OF GENERATING
EXTREME HEAT IN PART 8**

(Presented by M. Araya)

SUMMARY

This working paper proposes to clarify the provisions for battery-powered equipment capable of generating extreme heat in Table 8-1 of Part 8.

Action by the DGP is in paragraph 2.

1. INTRODUCTION

1.1 Table 8-1 in Part 8 was drastically amended at DGP/26 (Montreal, 16 to 27 October 2017) as reflected in the 2019-2020 Technical Instructions, and battery-powered equipment capable of generating extreme heat is included only in the “Lithium batteries” category.

1.2 There are not only products that use lithium batteries but also products that use other types of batteries. The absence of the description about products that use batteries other than lithium batteries raises doubt as to whether such types of products are permitted to be carried in carry-on baggage or checked baggage when batteries and heating elements are isolated as before.

1.3 In the provisions for “Heat producing articles, battery operated equipment, such as underwater torches or selling equipment, which if incidentally activated, will generate extreme heat and can cause fire,” in Table 3-1 of Part 3 and Special Provision A93, it is required that the heat-producing component or energy source is removed, and these provisions do not specify the type of battery. Accordingly, Table 8-1 of Part 8 is not consistent with these provisions.

1.4 Therefore, in order to clarify the provisions for battery-powered equipment capable of generating extreme heat, it is necessary to describe it as a separate item in Table 8-1 of Part 8, as with battery-powered portable electronic smoking devices.

2. ACTION BY THE DGP

2.1 The DGP is invited to discuss and adopt the amendment to Table 8-1 of Part 8 proposed in the appendix to this working paper.

APPENDIX

PROPOSED AMENDMENT TO PART 4 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

<i>Dangerous Goods</i>	<i>Location</i>		<i>Approval of the operator(s) is required</i>	<i>Restrictions</i>
	<i>Checked baggage</i>	<i>Carry-on baggage</i>		
Batteries				
...				
3) Battery-powered portable electronic smoking devices (e.g. e-cigarettes, ecigs, ecigars, epipes, personal vaporizers, electronic nicotine delivery systems)	No	Yes	No	a) if powered by lithium batteries, each battery must comply with restrictions of 1) a), b) and g); b) the devices and/or batteries must not be recharged on board the aircraft; and c) measures must be taken to prevent unintentional activation of the heating element while on board the aircraft.
4) <u>Battery-powered equipment capable of generating extreme heat, which could cause a fire if activated</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>a) if powered by lithium batteries, see 1);</u> <u>b) 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; and</u> <u>c) any battery which has been removed must be 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).</u>

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