



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
WORKING GROUP MEETING (DGP-WG/18)**

Montréal, 1 to 5 October 2018

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

SELF-HEATING FOOD AND BEVERAGE CONTAINING A FLAMELESS RATION HEATER

(Presented by J. Jin)

SUMMARY

This working paper proposes the addition of provisions to prohibit self-heating of food and beverages containing a flameless ration heater in carry-on or checked baggage.

Action by the DGP-WG: The DGP-WG is invited to consider the proposals as shown in the appendix to this working paper.

1. INTRODUCTION

1.1 Self-heating food and beverages containing a flameless ration heater (FRH) are used extensively as a convenient method of providing hot food and beverage to people while in the field. FRHs are devices used for the heating of food and beverages.

1.2 FRHs may contain regulated dangerous goods such as magnesium powder, or aluminium powder, which are water-reactive solids, or calcium oxide which is a corrosive substance. FRHs are well known to pose risk of fire, explosion, and health-related safety issues while in shipment, including:

- a) may produce flammable gases on contact with water;
- b) may ignite on contact with water or moist air;
- c) some react vigorously or explosively on contact with water;

- d) may be ignited by heat, sparks, or flames;
- e) may reignite after fire is extinguished;
- f) may cause damage on contact with human skin or aircraft parts.

1.3 According to a report by the US Federal Aviation Administration entitled the Fire Safety Hazard of the Use of Flameless Ration Heaters On board Commercial Aircraft (DOT/FAA/AR-TN06/18): “While it is well established that the shipment of a large quantity of these flameless heaters poses a significant fire safety risk, this report examines the potential hazard associated with the use of these meals, ready-to-eat in an aircraft cabin, or the accidental activation of flameless ration heaters in a confined area aboard the aircraft, such as in overhead storage bins or a cargo compartment.”

1.4 The government of Canada has issued a notice “Individual Meal Packages containing the FRH are forbidden in carry-on or checked baggage.”

1.5 A similar working paper proposing revisions to the provision of information to passengers was presented at the DGP working group meeting in 2008 (DGP-WG/08, The Hague, 3 to 7 November 2008) (see paragraph 3.2.45 of the DGP-WG/08 Report). The paper proposed the addition of an entry for flameless ration heaters and self heating beverages in the lists of hidden dangerous goods because they were known to sometimes contain regulated dangerous goods such as UN 2813 and UN 1910. The proposal was supported by a number of members in principle (see paragraph 3.2.45 of the DGP-WG/08 Report).

2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to consider banning self-heating food and beverage containing a flameless ration heater in carry-on or checked baggage. The DGP-WG is invited to amend Table 8-1 of the Technical Instructions as shown in the appendix to this working paper.

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

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> | | Approval of the operator(s) is required | <i>Restrictions</i> |
|--|-----------------|------------------|---|---------------------|
| | Checked baggage | Carry-on baggage | | |
| Other dangerous goods | | | | |
| ... | | | | |
| 24) <u>self-heating food and beverage containing a flameless ration heater</u> | <u>No</u> | <u>No</u> | <u>n/a</u> | <u>Forbidden</u> |

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