



WORKING PAPER

DANGEROUS GOODS PANEL (DGP)

TWENTY-SIXTH MEETING

Montréal, 16 to 27 October 2017

Agenda Item 2: Development of recommendations for amendments to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) for incorporation in the 2019-2020 Edition

**DRAFT AMENDMENTS TO THE TECHNICAL INSTRUCTIONS AGREED AT DGP-WG/16
AND DGP-WG/17 — PART 8**

(Presented by the Secretary)

SUMMARY

This working paper contains draft amendments to Part 8 of the Technical Instructions to reflect the decisions taken by the UN Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals at its eighth session (Geneva, 9 December 2016). It also reflects amendments agreed by DGP-WG/16 (Montréal, 16 to 27 October 2016) and DGP-WG/17 (Montréal, 24 to 28 April 2017).

The DGP is invited to agree to the draft amendments in this working paper.

Part 8

PROVISIONS CONCERNING PASSENGERS AND CREW

Chapter 1

PROVISIONS FOR DANGEROUS GOODS CARRIED BY PASSENGERS OR CREW

Parts of this Chapter are affected by State Variations US 15, VE 9, VE 10; see Table A-1

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>Items or articles</i>	<i>Location</i>			<i>Approval of the operator(s) is required</i>	<i>The pilot-in-command must be informed</i>	<i>Restrictions</i>
	<i>Checked baggage</i>	<i>Carry-on baggage</i>	<i>On the person</i>			

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Consumer articles

Alignment with the UN agreement that the word “risk” was inappropriately used in many paragraphs of the Model Regulations and should be replaced by the word “hazard” (see ST/SG/AC.10/C.3/98):

13) Aerosols in Division 2.2, with no subsidiary risk hazard , for sporting or home use	Yes	No	No	No	No	a) no more than 0.5 kg or 0.5 L total net quantity per single article; b) release valves on aerosols must be protected by a cap or other suitable means to prevent inadvertent release of the contents; and c) no more than 2 kg or 2 L total net quantity of all articles mentioned in 3), 10) and 13) (e.g. four aerosol cans of 500 mL each) per person.
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15) Small packet of safety matches	No	No	Yes	No	No	a) no more than one per person; and b) intended for use by an individual.
“Strike anywhere” matches	No	No	No	n/a	n/a	Forbidden.
Small cigarette lighter	No	No	Yes	No	No	a) no more than one per person; b) intended for use by an individual; and c) does not contain unabsorbed liquid fuel (other than liquefied gas).
Lighter fuel and lighter refills	No	No	No	n/a	n/a	Forbidden.

Items or articles	Location			Approval of the operator(s) is required	The pilot-in-command must be informed	Restrictions
	Checked baggage	Carry-on baggage	On the person			

DGP-WG/17 (see paragraph 3.5.3.6 of DGP/26-WP/3):

<u>Battery-powered lighters (powered by a lithium ion or lithium metal battery) (e.g. laser plasma lighters, tesla coil lighters, flux lighters, arc lighters and double arc lighters) without a safety cap or means of protection against unintentional activation</u>	No	No	No	n/a	n/a	Forbidden.
<u>Battery-powered lighters (powered by a lithium ion or lithium metal battery) (e.g. laser plasma lighters, tesla coil lighters, flux lighters, arc lighters and double arc lighters) with a safety cap or means of protection against unintentional activation</u>	No	No	Yes	n/a	n/a	<u>a) carried by passengers or crew for personal use;</u> <u>b) recharging of the devices and/or batteries on board the aircraft is not permitted;</u> <u>c) each battery must be of a type which meets the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3; and</u> <u>d) Each battery must not exceed the following:</u> <u>i) for lithium metal batteries, a lithium content of 2 grams, or</u> <u>ii) for lithium ion batteries, a Watt-hour rating of 100 Wh.</u>
Premixing burner lighter (see the Glossary of Terms in Attachment 2) with a means of protection against unintentional activation	No	No	Yes	No	No	a) no more than one per person; b) intended for use by an individual; and c) does not contain unabsorbed liquid fuel (other than liquefied gas).
Premixing burner lighter (see the Glossary of Terms in Attachment 2) without a means of protection against unintentional activation	No	No	No	n/a	n/a	Forbidden.

Alignment with the UN agreement that the word “risk” was inappropriately used in many paragraphs of the Model Regulations and should be replaced by the word “hazard” (see ST/SG/AC.10/C.3/98):

17) Avalanche rescue backpack containing a cylinder of compressed gas of Division 2.2 without subsidiary risk <u>hazard</u>	Yes	Yes	No	Yes	No	a) no more than one per person; b) may contain a pyrotechnic trigger mechanism which must not contain more than 200 mg net of Division 1.4S; c) the backpack must be packed in such a manner that it cannot be accidentally activated; and d) the airbags within the backpack must be fitted with pressure relief valves.
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Should read "safety"

Items or articles	Location			Approval of the operator(s) is required	The pilot-in-command must be informed	Restrictions
	Checked baggage	Carry-on baggage	On the person			
18) Small cartridges fitted into a self-inflating personal safety device such as a life-jacket or vest	Yes	Yes	Yes	Yes	No	a) no more than one personal safety device per person; b) the personal safety device must be packed in such a manner that it cannot be accidentally activated; c) limited to carbon dioxide or another suitable gas in Division 2.2 without subsidiary— risk hazard ; d) must be for inflation purposes; e) the device must be fitted with no more than two small cartridges; and f) no more than two spare cartridges.
Small cartridges for other devices	Yes	Yes	Yes	Yes	No	a) no more than four small cartridges of carbon dioxide or other suitable gas in Division 2.2, without subsidiary— risk hazard , per person; and b) the water capacity of each cartridge must not exceed 50 mL. <i>Note.— For carbon dioxide, a gas cartridge with a water capacity of 50 mL is equivalent to a 28 g cartridge.</i>

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DGP-WG/16 (see paragraph 3.5.3.1 of DGP/26-WP/2):

20) Portable electronic devices (such as watches, calculating machines, cameras, cellular phones, laptop computers, camcorders, electronic baggage tags)						
Portable electronic devices containing lithium metal or lithium ion cells or batteries (articles containing lithium metal or lithium ion cells or batteries the primary purpose of which is to provide power to another device must be carried as spare batteries in accordance with the item below)	Yes	Yes	Yes	No	No	a) carried by passengers or crew for personal use; b) should be carried as carry-on baggage; <u>DGP-WG/16 (see paragraph 3.5.3.1 of DGP/26-WP/2):</u> c) [except as provided for in paragraph g) below.] each battery must not exceed the following: — for lithium metal batteries, a lithium content of 2 grams; or — for lithium ion batteries, a Watt-hour rating of 100 Wh;

Items or articles	Location			Approval of the operator(s) is required	The pilot-in-command must be informed	Restrictions
	Checked baggage	Carry-on baggage	On the person			
						<p>DGP-WG/17 (see paragraph 3.5.1.1 of DGP/26-WP/3) (incorporated in the 2017-2018 Edition through Addendum No. 2):</p> <p>d) if devices are carried in checked baggage,:</p> <ul style="list-style-type: none"> — measures must be taken to prevent unintentional activation <u>and to protect from damage</u>; and — <u>the device must be completely switched off (not in sleep or hibernation mode); and</u> <p>DGP-WG/16 (see paragraph 3.5.3.1 of DGP/26-WP/2):</p> <p><u>e) if devices are carried outside the baggage, e.g. electronic baggage tags, the device must provide adequate protection for the battery fitted inside the device;</u></p> <p><u>f) electronic baggage tags, which are not capable of generating a dangerous evolution of heat, may be transported when intentionally active. Active devices must meet defined standards for electromagnetic radiation to ensure that the operation of the devices does not interfere with aircraft systems. The device must not be capable of emitting disturbing signals (such as buzzing alarms, strobe lights, etc.) during transport. Active devices in or on checked baggage must be designed with a minimum of two independent means to turn off completely, turn off cellular or mobile functions, or a combination of both when airborne.</u></p> <p><u>g) the electronic baggage tag may only contain one lithium battery, which must not exceed the following:</u></p> <ul style="list-style-type: none"> — <u>for lithium metal batteries, a lithium metal content of 0.3 grams; or</u> — <u>for lithium ion batteries, a Watt-hour rating of 2.7 Wh; and]</u> <p><u>eh) batteries and cells must be of a type which meets the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3.</u></p>

Items or articles	Location			Approval of the operator(s) is required	The pilot-in-command must be informed	Restrictions
	Checked baggage	Carry-on baggage	On the person			

DGP-WG/17 (see paragraph 3.5.3.7 of DGP/26-WP/3):

≠ Spare batteries (<u>including power banks</u>) for portable electronic devices containing lithium metal or lithium ion cells or batteries	No	Yes	Yes	No	No	<p>a) carried by passengers or crew for personal use;</p> <p>b) must be individually protected so as to prevent short circuits (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);</p> <p>c) each battery must not exceed the following:</p> <ul style="list-style-type: none"> — for lithium metal batteries, a lithium content of 2 grams; or — for lithium ion batteries, a Watt-hour rating of 100 Wh; and <p>d) batteries and cells must be of a type which meets the requirements of each test in the UN <i>Manual of Tests and Criteria</i>, Part III, subsection 38.3.;</p> <p><u>e) spare batteries including power banks must not be recharged while on board the aircraft; and</u></p> <p><u>f) power banks must not be electrically connected or providing power to an external device.</u></p>
Portable electronic devices containing lithium ion batteries exceeding a Watt-hour rating of 100 Wh but not exceeding 160 Wh	Yes	Yes	Yes	Yes	No	<p>DGP-WG/17 (see paragraph 3.5.1.1 of DGP/26-WP/3) (incorporated in the 2017-2018 Edition through Addendum No. 2):</p> <p>a) carried by passengers or crew for personal use;</p> <p>b) should be carried as carry-on baggage;-;</p> <p><u>c) if devices are carried in checked baggage:</u></p> <ul style="list-style-type: none"> — <u>measures must be taken to prevent unintentional activation and to protect the devices from damage; and</u> — <u>the devices must be completely switched off (not in sleep or hibernation mode); and</u> <p><u>ed) batteries and cells must be of a type which meets the requirements of each test in the UN <i>Manual of Tests and Criteria</i>, Part III, subsection 38.3.</u></p>
Spare batteries for portable electronic devices containing lithium ion batteries exceeding a Watt-hour rating of 100 Wh but not exceeding 160 Wh	No	Yes	Yes	Yes	No	<p>a) carried by passengers or crew for personal use;</p> <p>b) no more than two individually protected spare batteries per person;</p>

<i>Items or articles</i>	<i>Location</i>			<i>Approval of the operator(s) is required</i>	<i>The pilot-in-command must be informed</i>	<i>Restrictions</i>
	<i>Checked baggage</i>	<i>Carry-on baggage</i>	<i>On the person</i>			
...						<p>c) must be individually protected so as to prevent short circuits (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); and</p> <p>d) batteries and cells must be of a type which meets the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3.</p>

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