



WORKING PAPER

DANGEROUS GOODS PANEL (DGP)

TWENTY-FIRST MEETING

Montréal, 5 to 16 November 2007

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 2009-2010 Edition

DRAFT AMENDMENTS OF THE TECHNICAL INSTRUCTIONS TO ALIGN TO THE UN RECOMMENDATIONS — PART 8

(Presented by the Secretary)

SUMMARY

Below are the draft amendments to Part 8, Chapters 1, 2, 4, 5, 6 and 7 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 third session (Geneva, 15 December 2006) and as modified by the decisions of WG/06 and WG/07.

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**

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1.1 DANGEROUS GOODS CARRIED BY PASSENGERS OR CREW

DGP-WG/06-WP/12:

1.1.1 Except as otherwise provided in 1.1.2, dangerous goods, including excepted packages of radioactive material, must not be carried by passengers or crew members, either as or in carry-on baggage or checked baggage or on their person. Security type equipment such as attaché cases, cash boxes, cash bags, etc., incorporating dangerous goods, for example lithium batteries or pyrotechnic material, are totally forbidden; see entry in Table 3-1. Personal medical oxygen devices that utilize liquid oxygen are prohibited either as or in carry-on baggage or checked baggage or on the person.

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The source for the remaining amendments in 8;1 is from DGP-WG06-WP/54 and other papers, as indicated:

DGP-WG/07-WP/35:

1.1.2 Notwithstanding any additional restrictions which may be implemented by States in the interests of aviation security, except for the incident reporting provisions of 7;4.4, The provisions of these Instructions do not apply to the following when carried by passengers or crew members, or in baggage, ~~transported by the operator,~~ that has been separated from its owner during transit (e.g. lost baggage or improperly routed baggage):

Medical necessities

DGP-WG/07-WP/26:

- ea) with the approval of the operator(s), ~~small~~ gaseous oxygen or air cylinders required for medical use. Each cylinder must not exceed 5 kg gross mass. Cylinders, valves and regulators, where fitted, must be protected from damage which could cause inadvertent release of the contents;
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DGP-WG/06-WP/12:

Note.— Devices containing liquid oxygen are forbidden as or in carry-on baggage, checked baggage or on the person.

- eb) ~~small~~ cylinders of a gas of Division 2.2 worn for the operation of mechanical limbs, also spare cylinders of a similar size if required to ensure an adequate supply for the duration of the journey;
- bc) non-radioactive medicinal or toilet articles (including aerosols). ~~Also aerosols in Division 2.2, with no subsidiary risk, for sporting or home use is permitted in checked baggage only.~~ The total net quantity of all such articles carried by each person must not exceed 2 kg or 2 L and the net quantity of each single article must not exceed 0.5 kg or 0.5 L. Release valves on aerosols must be protected by a cap or other suitable means to prevent inadvertent release of the contents. ~~The term “medicinal or toilet articles (including aerosols)” is intended to include such items as hair sprays, perfumes, colognes and medicines containing alcohols;~~
- hd) radioisotopic cardiac pacemakers or other devices, including those powered by lithium batteries, implanted into a person, or radio-pharmaceuticals contained within the body of a person as the result of medical treatment;
- ie) with the approval of the operator(s), wheelchairs or other battery-powered mobility aids with non-spillable batteries (see Packing Instruction 806 and Special Provision A67), as checked baggage provided the battery terminals are protected from short circuits and the battery is securely attached to the wheelchair or mobility aid;
- if) with the approval of the operator(s), wheelchairs or other battery-powered mobility aids with spillable batteries as checked baggage, provided that the wheelchair or mobility aid can be loaded, stowed, secured and unloaded always in an upright position and that the battery is disconnected, the battery terminals are protected from short circuits and the battery is securely attached to the wheelchair or mobility aid. If the wheelchair or mobility aid cannot be loaded, stowed, secured and unloaded always in an upright position, the battery must be removed and the wheelchair or mobility aid may then be carried as checked baggage without restriction. The removed battery must be carried in strong, rigid packagings as follows:
- 1) these packagings must be leaktight, impervious to battery fluid and be protected against upset by securing them to pallets or by securing them in cargo compartments using appropriate means of securement (other than by bracing with freight or baggage) such as by use of restraining straps, brackets or holders;

- 2) batteries must be protected against short circuits, secured upright in these packagings and surrounded by compatible absorbent material sufficient to absorb their total liquid contents; and
- 3) these packagings must be marked "Battery, wet, with wheelchair" or "Battery, wet, with mobility aid" and be labelled with a "Corrosive" label (Figure 5-21) and with a package orientation label (Figure 5-25).

The pilot-in-command must be informed of the location of a wheelchair or mobility aid with an installed battery or the location of a packed battery.

It is recommended that passengers make advance arrangements with each operator; also unless batteries are non-spillable they should be fitted, where feasible, with spill-resistant vent caps;

- eg) one small medical or clinical thermometer which contains mercury, for personal use, when in its protective case;

Articles used in dressing or grooming

~~bh) non radioactive medicinal or toiletry articles (including aerosols). Also aerosols in Division 2.2, with no subsidiary risk, for sporting or home use is permitted in checked baggage only.~~ The total net quantity of all such articles carried by each person must not exceed 2 kg or 2 L and the net quantity of each single article must not exceed 0.5 kg or 0.5 L. Release valves on aerosols must be protected by a cap or other suitable means to prevent inadvertent release of the contents. The term "medicinal or toiletry articles (including aerosols)" is intended to include such items as hair sprays, perfumes, and colognes ~~and medicines containing alcohols;~~

- ki) hair curlers containing hydrocarbon gas, no more than one per person, provided that the safety cover is securely fitted over the heating element. Gas refills for such curlers must not be carried;

Consumer articles

- aj) when in retail packagings, alcoholic beverages containing more than 24 per cent but not more than 70 per cent alcohol by volume, in receptacles not exceeding 5 L, with a total net quantity per person of 5 L for such beverages;

Note.— Alcoholic beverages containing not more than 24 per cent alcohol by volume are not subject to any restrictions.

~~bk) non radioactive medicinal or toilet articles (including aerosols). Also a~~ Aerosols in Division 2.2, with no subsidiary risk, for sporting or home use is permitted in checked baggage only. The total net quantity of all such articles carried by each person must not exceed 2 kg or 2 L and the net quantity of each single article must not exceed 0.5 kg or 0.5 L. Release valves on aerosols must be protected by a cap or other suitable means to prevent inadvertent release of the contents. ~~The term "medicinal or toilet articles (including aerosols)" is intended to include such items as hair sprays, perfumes, colognes and medicines containing alcohols;~~

- el) with the approval of the operator(s), as checked baggage only, securely packaged cartridges (UN 0012 or UN 0014 only), in Division 1.4S, in quantities not exceeding 5 kg gross mass per person for that person's own use, excluding ammunition with explosive or incendiary projectiles. Allowances for more than one person must not be combined into one or more packages;

- ≠ gm) one small packet of safety matches or a cigarette lighter that does not contain unabsorbed liquid fuel (other than liquefied gas), intended for use by an individual when carried on the person. Matches and lighters are not permitted in checked or carry-on baggage. Lighter fuel and lighter refills are not permitted on one's person, in carry-on or checked baggage;

Note.— "Strike anywhere" matches are forbidden for air transport.

- n) with the approval of the operator(s), ~~heat producing articles (i.e. battery operated equipment such as underwater torches and soldering equipment which, if accidentally activated, will generate extreme heat and can cause fire) may be carried in carry-on baggage only. The heat producing component, or the energy source, must be removed so as to prevent unintentional functioning during transport~~ battery-powered equipment capable of generating extreme heat, which could cause a fire if activated (e.g. underwater high intensity lamps) providing that the heat producing component or the battery is packed separately so as to prevent activation during transport. Any battery which has been removed must be protected against short circuit;

- ≠ po) with the approval of the operator(s), one avalanche rescue backpack per person equipped with a pyrotechnic trigger mechanism containing not more than 200 mg net of Division 1.4S and a cylinder of compressed gas of Division 2.2 not exceeding 250 mL. The backpack must be packed in such a manner that it cannot be accidentally activated. The airbags within the backpack must be fitted with pressure relief valves;

- m) with the approval of the operator(s), no more than two small cylinders of carbon dioxide or another suitable gas in Division 2.2, per person, fitted into a self-inflating life-jacket for inflation purposes, plus no more than two spare cartridges;

DGP-WG/07-WP/54:

- q) consumer electronic devices (watches, calculating machines, cameras, cellular phones, laptop computers, camcorders, etc.) containing lithium or lithium ion cells or batteries when carried by passengers or crew for personal use. Spare batteries must be individually protected so as to prevent short circuits (e.g. by placement in original retail packaging or by taping over exposed terminals or placing each battery in a separate plastic bag or protective pouch) and carried in carry-on baggage only. In addition, each spare battery must not exceed the following quantities:
- for lithium metal or lithium alloy batteries, a lithium content of not more than 2 grams; or
 - for lithium ion batteries, an aggregate equivalent lithium content of not more than 8 grams.

DGP-WG/06-WP/29:

~~Lithium ion batteries with an aggregate equivalent lithium content of more than 8 grams but not more than 25 grams may be carried in carry-on baggage if they are individually protected so as to prevent short circuits and are limited to two spare batteries per person.~~

- r) fuel cell systems used to power portable electronic devices (for example cameras, cellular phones, laptop computers and camcorders) ~~powered by fuel cell systems~~, and spare fuel cartridges, under the following conditions:

DGP-WG/07-WP/23, WP/21 and WP/31:

- 1) fuel cell cartridges may only contain flammable liquids ~~(including methanol, formic acid and butane,~~ corrosive substances, liquefied flammable gas, water reactive substances or, hydrogen in metal hydride;
- ~~2) fuel cell cartridges must comply with International Electrotechnical Commission (IEC) PAS 62282-6-1 Ed. 1;~~
- 3) fuel cell cartridges must not be refillable by the user. Refuelling of fuel cell systems is not permitted except that the installation of a spare cartridge is allowed. Fuel cell cartridges which are used to refill fuel cell systems but which are not designed or intended to remain installed (fuel cell refills) are not permitted to be carried;
- 4) the maximum quantity of fuel in any fuel cell cartridge must not exceed:
 - a) for liquids 200 mL;
 - b) for solids 200 grams;
 - c) for liquefied gases, 120 mL for non-metallic fuel cell cartridges or 200 ml for metal fuel cell cartridges;
 - d) for hydrogen in metal hydride the fuel cell cartridges shall have a water capacity of 120 mL or less;
- 5) each fuel cell system and each fuel cell ~~cartridge must be marked with a manufacturer's certification that it~~ must conform to IEC PAS 62282-6-1 Ed. 1, and must be marked with a manufacturer's certification that it conforms to the specification. In addition, each fuel cell cartridge must be marked with the maximum quantity and type of fuel in the cartridge;
- ~~6) each fuel cell system must conform to IEC PAS 62282-6-1 Ed. 1, and must be marked with a manufacturer's certification that it conforms to the specification;~~
- 7) no more than two spare fuel cell cartridges may be carried by a passenger;
- 8) fuel cell systems containing fuel and fuel cell cartridges including spare cartridges are permitted in carry-on baggage only;
- 9) interaction between fuel cells and integrated batteries in a device must conform to IEC PAS 62282-6-1 Ed. 1. Fuel cell systems whose sole function is to charge a battery in the device are not permitted;
- 10) fuel cell systems must be of a type that will not charge batteries when the portable electronic device is not in use and must be durably marked by the manufacturer: "APPROVED FOR CARRIAGE IN AIRCRAFT CABIN ONLY" to so indicate; and

449) in addition to the languages which may be required by the State of Origin for the markings specified above, English should be used.

Other

≠ f) with the approval of the operator, dry ice in quantities not exceeding 2.5 kg per person, when used to pack perishables that are not subject to these Instructions, provided the package permits the release of carbon dioxide gas. ~~The dry ice may be either:~~

~~_____ in carry-on baggage; or~~

~~_____ with the approval of the operator(s), in checked baggage.~~

When carried in checked baggage, each package must be marked:

— “DRY ICE” or “CARBON DIOXIDE, SOLID”; and

— with the net weight of dry ice or an indication that the net weight is 2.5 kg or less;

h) with the approval of the operator(s), as carry-on baggage only, a mercurial barometer or mercurial thermometer carried by a representative of a government weather bureau or similar official agency. The barometer or thermometer must be packed in a strong outer packaging, having a sealed inner liner or a bag of strong leakproof and puncture-resistant material impervious to mercury, which will prevent the escape of mercury from the package irrespective of its position. The pilot- in-command must be informed of the barometer or thermometer;

su) with the approval of the operator(s), as carry-on or checked baggage, instruments containing radioactive material not exceeding the activity limits specified in Table 2-12 (i.e. chemical agent monitor (CAM) and/or rapid alarm and identification device monitor (RAID-M)), securely packed and without lithium batteries, when carried by staff members of the Organization for the Prohibition of Chemical Weapons (OPCW) on official travel.

1.1.3 Any organization or enterprise other than an operator (such as a travel agent), involved in the air transport of passengers, should provide passengers with information about the types of dangerous goods which they are forbidden to transport aboard an aircraft. This information should consist of, as a minimum, notices at those locations where there is an interface with the passengers.

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