International Civil Aviation Organization

DGP-WG/11-WP/9
16/3/11

WORKING PAPER

DANGEROUS GOODS PANEL (DGP)
MEETING OF THE WORKING GROUP OF THE WHOLE

Atlantic City, United States, 4 to 8 April 2011

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 2013-2014 Edition
2.6: Part 6 — Packaging Nomenclature, Marking, Requirements and Tests

DRAFT AMENDMENTS TO THE TECHNICAL INSTRUCTIONS TO ALIGN WITH THE UN RECOMMENDATIONS — PART 6

(Presented by the Secretary)

SUMMARY

This working paper contains draft amendments to Part 6 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 fifth session (Geneva, 10 December 2010).

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

Part 6

PACKAGING NOMENCLATURE, MARKING, REQUIREMENTS AND TESTS

Chapter 1

APPLICABILITY, NOMENCLATURE AND CODES

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1.3 INDEX OF PACKAGINGS

Table 6-2. Index of packagings other than inner packagings

Kind	*Code and, where applicable, category*		*Paragraph*	*Maximum capacity (L)*	*Maximum net mass (kg)*
. . .					
Plastic boxes	4H1	expanded plastic boxes	3.1.12		60
	4H2	solid plastic boxes	3.1.12		400
Steel ~~or~~, aluminium or other metal boxes	4A	steel	3.1.13		400
	4B	aluminium	3.1.13		400
	4N	other than steel or aluminium	3.1.13		
Textile bags	5L1	without inner liner or coating	Not used in these Instructions		
	5L2	siftproof	3.1.14		50
	5L3	water-resistant	3.1.14		50
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Chapter 2

MARKING OF PACKAGINGS OTHER THAN INNER PACKAGINGS

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2.4 PACKAGING MARKINGS FOR INTERMEDIATE BULK CONTAINERS

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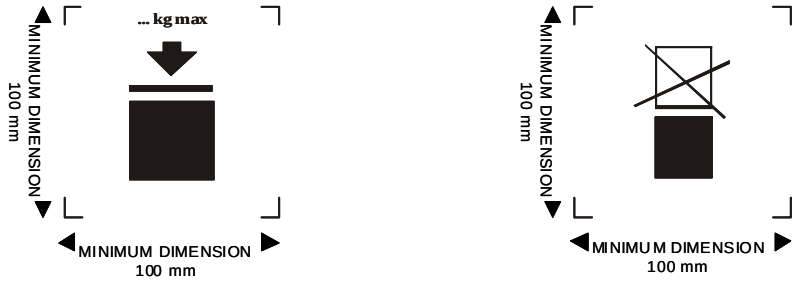
2.4.3 The maximum permitted stacking load applicable when the IBC is in use must be displayed on a symbol as follows:



The mass marked above the symbol must not exceed the load imposed during the design type test (see 6.5.6.6.4 of the UN Model Regulations) divided by 1.8.

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Chapter 3

REQUIREMENTS FOR PACKAGINGS

3.1 REQUIREMENTS FOR PACKAGINGS OTHER THAN INNER PACKAGINGS

General requirements

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3.1.13 Steel ~~or~~, aluminium or other metal boxes
4A steel
4B aluminium
4N metal, other than steel or aluminium

. . .

Chapter 5

REQUIREMENTS FOR THE CONSTRUCTION AND TESTING OF CYLINDERS AND CLOSED CRYOGENIC RECEPTACLES, AEROSOL DISPENSERS AND SMALL RECEPTACLES CONTAINING GAS (GAS CARTRIDGES) AND FUEL CELL CARTRIDGES CONTAINING LIQUEFIED FLAMMABLE GAS

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5.1 GENERAL REQUIREMENTS

5.1.1 Design and construction

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5.1.1.5 The test pressure of cylinders must be in accordance with Packing Instruction 200 [or, for a chemical under pressure, with Packing Instruction 218]. The test pressure for closed cryogenic receptacles must be in accordance with Packing Instruction 202. The test pressure of a metal hydride storage system must be in accordance with Packing Instruction 214.

. . .

5.1.6 Periodic inspection and testing

5.1.6.1 Refillable cylinders must be subjected to periodic inspections and tests by a body authorized by the appropriate national authority, in accordance with the following:

a) check of the external conditions of the cylinder and verification of the equipment and the external markings;

. . .

e) check of service equipment, other accessories and pressure-relief devices, if to be reintroduced into service.

Note.— For the periodic inspection and test frequencies, see Packing Instruction 200 [or, for a chemical under pressure, Packing Instruction 218].

. . .

Insert new paragraph 5.1.6.3

5.1.6.3 Pressure relief valves for closed cryogenic receptacles must be subject to periodic inspections and tests.

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5.2.3 Service equipment

The following standards apply to closures and their protection:

~~ISO 11117:1998 Gas cylinders — Valve protection caps and valve guards for industrial and medical gas cylinders — Design, construction and tests.~~

ISO 11117:2008+ Cor 1:2009 Gas cylinders — Valve protection caps and valve guards — Design, construction and tests.

Note.— Construction according to ISO 11117:1998 may continue until 31 December 2014.

ISO 10297:2006 Gas cylinders — Refillable gas cylinder valves — Specification and type testing.

ISO 13340:2001 Transportable gas cylinders — Cylinders valves for non-refillable cylinders — Specification and prototype testing

For UN metal hydride storage systems, the requirements specified in the following standard apply to closures and their protection:

ISO 16111:2008 Transportable gas storage devices — Hydrogen absorbed in reversible metal hydride.

5.2.4 Periodic inspection and test

The following standards apply to the periodic inspection and testing of UN cylinders and UN metal hydride storage systems:

. . .

ISO 11623:2002 Transportable gas cylinders — Periodic inspection and testing of composite gas cylinders.

ISO 16111:2008 Transportable gas storage devices — Hydrogen absorbed in reversible metal hydride.

ISO 10460:2005 Gas cylinders – Welded carbon-steel gas cylinders – Periodic inspection and testing

Note.— The repair of welds described in clause 12.1 of this standard must not be permitted. Repairs described in clause 12.2 require the approval of the appropriate national authority which approved the periodic inspection and test body in accordance with 5.2.6.

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5.3 REQUIREMENTS FOR NON-UN CYLINDERS AND NON-UN CLOSED CRYOGENIC RECEPTACLES

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5.3.3 For metallic cylinders [and salvage pressure receptacles], the construction must be such that the minimum burst ratio (burst pressure divided by test pressure) is:

1.50 for refillable cylinders,
2.00 for non-refillable cylinders.

5.3.4 Marking must be in accordance with the requirements of the appropriate national authority of the country of use.

[5.3.5 Salvage pressure receptacles

5.3.5.1 To permit the safe handling and disposal of the pressure receptacles transported within the salvage pressure receptacle, the design may include equipment not otherwise used for cylinders or pressure drums such as flat heads, quick opening devices and openings in the cylindrical part.

5.3.5.2 Instructions on the safe handling and use of the salvage pressure receptacle must be clearly shown in the documentation for the application to the appropriate national authority and must form part of the approval certificate. In the approval certificate, the pressure receptacles authorized to be transported in a salvage pressure receptacle must be indicated. A list of the materials of construction of all parts likely to be in contact with the dangerous goods must also be included.

5.3.5.3 A copy of the approval certificate must be delivered by the manufacturer to the owner of a salvage pressure receptacle.

5.3.5.4 The marking of salvage pressure receptacles according to 5.3 must be determined by the appropriate national authority in taking into account suitable marking provisions of 5.2.7 as appropriate. The marking must include the water capacity and test pressure of the salvage pressure receptacle.

Note.— These provisions for salvage pressure receptacles may be applied for new salvage pressure receptacles as from 1 January 2013, unless otherwise authorized, and must be applied for all new salvage pressure receptacles as from 1 January 2014. Salvage pressure receptacles approved in accordance with national regulations may be used with the approval of the appropriate national authorities of the countries of use.]

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