

**DANGEROUS GOODS PANEL (DGP)**

**NINETEENTH MEETING**

**Montreal, 27 October to 7 November 2003**

**Agenda Item 2 Development of recommendations for amendments to the Technical  
: Instructions for incorporation in the 2005/2006 edition**

**AMENDMENTS TO THE TECHNICAL INSTRUCTIONS TO ALIGN  
WITH THE UN RECOMMENDATIONS - PART 5**

(Presented by the Secretary)

**SUMMARY**

Below are the amendments to Part 5 Chapters 1, 2, 3 and 4 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 the first session (Geneva, 11 to 13 December 2002) and as modified by the meetings of the Working Group of the Whole (Frankfurt, 16 to 20 September 2002 and Montreal, 5 to 9 May 2003).

**Chapter 1**

**GENERAL**

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**1.2 ADDITIONAL GENERAL  
REQUIREMENTS FOR  
INFECTIOUS SUBSTANCES**

~~1.2.1 The transport of infectious substances requires coordinated action by the shipper, the operator and the consignee to ensure safe transport and arrival on time and in proper condition. To this end, the following measures must be taken:~~

- ~~a) Advance arrangements between shipper, operator and consignee. Dispatch of infectious substances must not take place before advance arrangements have been made between shipper, operator or consignee and before the consignee has confirmed with his appropriate national authorities that the substances can legally be imported and that no delay will be incurred in the delivery of the consignment to its destination.~~
- ~~b) Preparation of dispatch documents. In order to secure transmission without hindrance it is necessary to prepare all dispatch documents, including the transport document (see Chapter 4), in strict accordance with rules governing the acceptance of goods to be dispatched;~~
- ~~c) Routing. Whatever the mode used, transport must be by the quickest routing. If transshipment is necessary, precautions must be taken to ensure special care, expeditious handling and monitoring of the substances in transit.~~
- ~~d) Timely notification of all transport data by shipper to consignee. The shipper must notify the consignee in advance of transport details. The most rapid means of communication must be used for this notification.~~

~~1.2.2~~ **1.2.1 Unless an infectious substance cannot be consigned by any other means, live vertebrate or invertebrate animals must not be used to consign such a substance. Infectious substances unless such substances cannot be consigned by any other means.** Infected live animals must not be transported by air unless exempted in accordance with Part 1;1.1.2.

**Secretarial Note:** See DGP/19-WP/3, paragraph 6.3.2.6

## 1.3 GENERAL PROVISIONS FOR CLASS 7

### 1.3.1 Requirements before shipments

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#### 1.3.1.2 Each shipment

Before each shipment of any package, the following requirements must be fulfilled:

- a) For any package it must be ensured that all the requirements specified in the relevant provisions of these Instructions have been satisfied;
- b) It must be ensured that lifting attachments which do not meet the requirements of 6;7.1.2 have been removed or otherwise rendered incapable of being used for lifting the package, in accordance with 6;7.1.3;

- c) For each Type B(U), Type B(M) and Type C package and for each package containing fissile material, it must be ensured that all the requirements specified in the approval certificates have been satisfied;
- d) Each Type B(U), Type B(M) and Type C package must be held until equilibrium conditions have been approached closely enough to demonstrate compliance with the requirements for temperature and pressure unless an exemption from these requirements has received unilateral approval;
- e) For each Type B(U), Type B(M) and Type C package, it must be ensured by inspection and/or appropriate tests that all closures, valves, and other openings of the containment system through which the radioactive contents might escape are properly closed and, where appropriate, sealed in the manner for which the demonstrations of compliance with the requirements of 6;7.7.7 and 6;7.9.3 were made;
- f) For each special form radioactive material, it must be ensured that all the requirements specified in the ~~special form~~ approval certificate and the relevant provisions of these Instructions have been satisfied;
- g) For packages containing fissile material, the measurement specified in 6;7.10.4 b) and the tests to demonstrate closure of each package as specified in 6;7.10.7 must be performed where applicable;
- h) For each low dispersible radioactive material, it must be ensured that all the requirements specified in the approval certificate and the relevant provisions of these Instructions have been satisfied.

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## Chapter 2

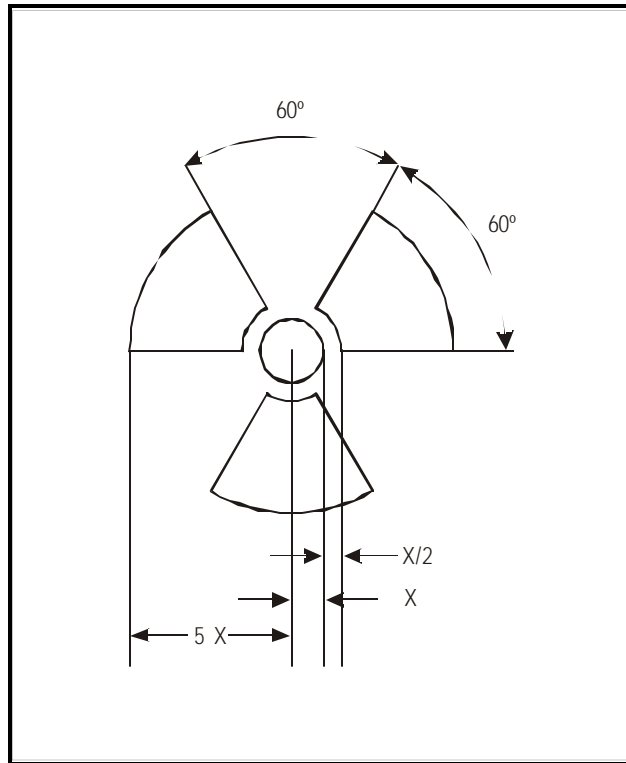
### PACKAGE MARKINGS

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#### 2.4.5 Special marking requirements for radioactive material

- a) each package of gross mass exceeding 50 kg must have its permissible gross mass legibly and durably marked on the outside of the packaging;
- b) each package which conforms to:
  - i) ~~an Industrial a Type IP-1 package, Type 1, an Industrial a Type IP-2 package Type 2 or an Industrial a Type IP-3 package Type 3~~ design must be legibly and durably marked on the outside of the packaging with “TYPE IP-1”, “TYPE IP-2” or “TYPE IP-3” as appropriate;
  - ii) a Type A package design must be legibly and durably marked on the outside of the packaging with “TYPE A”;
  - iii) ~~an Industrial a Type IP-2 package, Type 2, an Industrial a Type IP-3 package Type 3~~ or a Type A package design must be legibly and durably marked on the outside of the packaging with the international vehicle registration code (VRI Code) of the country of origin of design and the name of the manufacturers, or other identification of the packaging specified by the competent authority.
- c) each package which conforms to a design approved by the competent authority must be legibly and durably marked on the outside of the packaging with:
  - i) the identification mark allocated to that design by the competent authority;
  - ii) a serial number to uniquely identify each packaging which conforms to that design;
  - iii) in the case of a Type B(U) or Type B(M) package design, with “TYPE B(U)” or “TYPE B(M)”;
  - iv) in the case of a Type C package design, with “TYPE C”.

- d) each package which conforms to a Type B(U), Type B(M) or Type C package design must have the outside of the outermost receptacle which is resistant to the effects of fire and water plainly marked by embossing, stamping or other means resistant to the effects of fire and water with the trefoil symbol, as shown in Figure 5-1 below:



**Figure 5-1. Basic trefoil symbol with proportions based on a central circle of radius  $X$ . The minimum allowable size of  $X$  must be 4 mm.**

- e) each expected package must be marked with the UN number, preceded by the letters "UN".

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#### 2.4.9 Marking of overpacks

- a) Proper shipping names, UN numbers, "limited quantities" (when applicable), the air eligibility marking (when applicable) and special handling instructions appearing on interior packages must be clearly visible, or reproduced on the outside of the overpack.
- b) When these Instructions require the use of packagings bearing UN Specification Markings or Type A or B packagings for radioactive material, the statement "Inner packages comply

with prescribed specifications” must appear on an overpack used to enclose these packages, unless such markings are visible.

- c) "Where packages containing diagnostic specimens are placed in an overpack, the words "Diagnostic Specimens" and the air eligibility marking, appearing on packages within must be clearly visible, or must be reproduced on the outside of the overpack.

**Secretarial Note:** *See WG/02-WP/19*

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#### 2.4.12 Air eligibility marking

~~From 1 January 2004, packagingses, including those used for limited quantities of dangerous goods, must be marked to indicate that the shipper has determined that the packaginge meets the applicable air transport requirements. The marking must be applied as prescribed in 2.2 and must be placed adjacent to the markings prescribed in 2.4.1, or for limited quantity packagings, adjacent to the marking prescribed in 2.4.10. The marking must be durable, legible and of such a size relative to the packaginge as to be readily visible. The~~



marking must include the symbol consisting of an aircraft within a circle and may include the words “Air Eligible”. For example:

~~*Note.— This marking may be applied to packagings from 1 January 2003.*~~

**Secretarial Note:** *See WG/03-WP/37*

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## Chapter 3

### LABELLING

#### 3.2 APPLICATION OF LABELS

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3.2.7 [Except as provided in 3.4.1.1 d] each label must:

- a) be affixed to a background of contrasting colour or must have a dotted or solid line outer boundary;
- b) be located on the same surface of the package near the proper shipping name marking, if the package dimensions are adequate;
- c) be so placed on the packaging that they are not covered or obscured by any part of or attachment to the packaging or any other label or marking; and
- d) when primary and subsidiary risk labels are required, be displayed next to each other.

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3.2.11 In addition to the class hazard labels specified in 3.1, handling labels must also be affixed to packages of dangerous goods as follows:

- a) the “Cargo aircraft only” label (Figure 5-24~~23~~) must be affixed:
  - 1) when the package containing the dangerous goods may only be transported on a cargo aircraft. However, where the packing instruction number and the permitted quantity per package are identical for passenger and cargo aircraft, the “Cargo aircraft only” label should not be used;
  - 2) to each Type B(M) package of radioactive material and any freight container containing such a Type B(M) package;
  - 3) on the same surface of the package near the hazard labels;
- b) when required by the provisions of 3.1.1.13, either the “Package Orientation” label (Figure 5-24), or pre-printed package orientation labels meeting the same specification as either Figure 5-22~~24~~ or ISO Standard 780-1985, must be affixed to or printed on at least two opposite vertical sides of the package with the arrows pointing in the correct direction. The words “Dangerous Goods” may be inserted on the label below the line;
- c) for packages containing refrigerated liquefied gases, the “Cryogenic liquid” label (Figure 5-26) must be affixed on all packages.

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### 3.4.1 Class hazard label specifications

3.4.1.1 Class hazard labels must conform to the following specifications:

- a) They must be in the form of a square with minimum dimensions of 100 mm × 100 mm, set at an angle of 45E (diamond shaped) except that labels of 50 mm × 50 mm may be used on packages containing infectious substances where the packages are of dimensions such that they can only bear smaller labels. The labels have a line of the same colour as the symbol, 5 mm inside the edge and running parallel to it. Labels are divided into halves. With the exception of Divisions 1.4, 1.5 and 1.6, the upper half of the label is reserved for the pictorial symbol and the lower half for texts and the class or division number and the compatibility group letter as appropriate.
- b) The symbols, texts and numbers must be shown in black on all labels except:
  - i) the Class 8 label, where the text (if any) and class number must appear in white;
  - ii) labels with entirely green, red or blue backgrounds, where they may be shown in white.
- c) Except for Divisions 1.4, 1.5 and 1.6, labels for Class 1 show in the lower half the division number and compatibility group letter for the substance or article. Labels for Divisions 1.4, 1.5 and 1.6 must show in the upper half the division number and in the lower half the compatibility group letter.
- [d) Cylinders for Class 2 may, on account of their shape, orientation and securing mechanisms for transport, bear labels representative of those specified in this chapter, which have been reduced in size, according to ISO 7225:1994, for display on the non-cylindrical part (shoulder) of such cylinders. Labels may overlap to the extent provided for by ISO 7225:1994 “Gas cylinders - Precautionary labels”; however, in all cases, the labels representing the primary hazard and the numbers appearing on any label must remain fully visible and the symbols recognizable.]

**Secretarial Note** - compare with 3.2.8

- ⊘ e) In the case of labels for Class 5, the division number of the substance must be shown in the bottom corner of the label. For all other labels, the class number must be shown in the bottom corner of the label.

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#### Figure 5-25

Amend distance of black line running inside the edge of the placard to 5 mm.

**Secretarial Note:** See WG/02-WP/44



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## Chapter 4

### DOCUMENTATION

#### 4.1.5.7 *Radioactive material*

4.1.5.7.1 The following information must be included for each consignment of Class 7 material, as applicable, in the order given:

- a) The name or symbol of each radionuclide or, for mixtures of radionuclides, an appropriate general description or a list of the most restrictive nuclides;
- b) A description of the physical and chemical form of the material, or a notation that the material is special form radioactive material or low dispersible radioactive material. A generic chemical description is acceptable for chemical form;
- c) The maximum activity of the radioactive contents during transport expressed in units of becquerels (Bq) with an appropriate SI prefix (see 1.2.2.1). For fissile material, the mass of fissile material in units of grams (g), or appropriate multiples thereof, may be used in place of activity;
- d) The category of the package, i.e. I-WHITE, II-YELLOW, III-YELLOW;
- e) The transport index (categories II-YELLOW and III-YELLOW only);
- f) For consignments including fissile material other than consignments excepted under 6.4.11.2, the criticality safety index;
- g) The identification mark for each competent authority approval certificate (special form radioactive material, low dispersible radioactive material, special arrangement, package design, or shipment) applicable to the consignment;
- h) **For consignments of more than one package, the information contained in 4.1.4.1 a) to c) and 4.1.5.7.1 a) to g) must be given for each package.** For ~~consignments~~ of packages in an overpack or freight container, a detailed statement of the contents of each package within the overpack or freight container and, where appropriate, of each overpack or freight container ~~in the consignment~~ **must be included**. If packages are to be removed from the overpack or freight container at a point of intermediate unloading, appropriate transport documents must be made available;
- i) Where a consignment is required to be shipped under exclusive use, the statement “EXCLUSIVE USE SHIPMENT”; and
- j) For LSA-II, LSA-III, SCO-I and SCO-II, the total activity of the consignment as a multiple of  $A_2$ .

