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**COMMITTEE OF EXPERTS ON THE  
TRANSPORT OF DANGEROUS GOODS**

**(Twentieth session,  
Geneva, 7-16 December 1998,  
agenda item 2 (d))**

**WORK OF THE SUB-COMMITTEE OF EXPERTS ON  
THE TRANSPORT OF DANGEROUS GOODS**

**Draft amendments to the Model Regulations  
on the Transport of Dangerous Goods**

**New proposals**

**Subsidiary Risk Labels**

**Transmitted by the Experts from Australia and Canada**

**Introduction**

1. At the 15th Session the Sub-Committee was presented with a proposal from the expert from Australia to eliminate the obligation to use different labels for primary and subsidiary risks. (ST/SG/AC.10/C.3/1998/5). The Sub-Committee approved of the principle.
2. In this document the joint proposal from Australia and Canada is to remove the distinction between a label used to identify a risk when it is a primary risk and a label used to identify the same risk when it is a subsidiary risk. This would be accomplished by using the primary risk labels currently in 5.2.2.2.2.1 to represent either of these risks.

### Discussion

3. The primary purpose of a risk label is to assist the emergency responder. One could argue that in an accident situation the transport document for a small container could be more safely recovered than the transport document for a large container and hence any need for a distinction between primary and secondary risk safety marks should apply first with respect to placards. However, the primary risk placards and the subsidiary risk placards are the same.

4. Retaining the two types of labels may only be fully useful for responders if the responders are very familiar with the Dangerous Goods List. For example, does each responder know that currently the subsidiary risk label No. 01 is used only for Division 1.2, that the subsidiary risk label No. 03 is used for either Division 2.1 or Class 3, or that the subsidiary risk label No. 06.1 which one would expect could represent either Division 2.3 or Division 6.1 is used for only Division 6.1?

5. The RID and ADR no longer maintain the distinction between primary and subsidiary risk labels. They have chosen to use the UN labels 1, 1.4, 1.5, 1.6, 01, 2.2, 03, 04.1, 04.2, 04.3, 5.1, 5.2, 05, 06.1, 6.2, 7A, 7B, 7C, 7D, 08, and 9 as the risk labels. Thus in their system some risk labels have a number in the bottom corner and some do not.

6. The requirement to use different labels to identify the same risk according to whether it is a primary risk or a subsidiary risk places constraints on enterprises.

7. The Subcommittee indicated in a general discussion at its 15<sup>th</sup> session that it was in favour of eliminating the distinction between subsidiary risk and primary risk labels by using only labels in models Nos. 1 to 9. To achieve the aim of this proposal, amendments are required for selected clauses of the Model Regulations. These amendments are discussed below. Amendment instructions are contained in Annex 1 to this document.

2.4.2.3.2.4 This clause, as well as several others, uses the phrase ““EXPLOSIVE” subsidiary risk label”. Clause 5.2.2.1.1 will be amended to state that the “EXPLOSIVE” subsidiary risk label is model No. 1. (See also proposed change below under 5.2.2.2.2 relating to model No. 1.)

2.5.3.2.4 In the notes on 2.5.3.2.4, the reference to Model No. 01 and the references to Model No. 08 will no longer be needed. (Observation: The Model Regulations does not consistently use “Model No.” or “model No.”.)

3.3.1 The word order of special provision 162 will be corrected to read “flammable liquid subsidiary risk label” to be consistent with SP 282 and similar uses (e.g., “EXPLOSIVE” subsidiary risk label).

4.1.5.3 The reference to “Model No. 01” will be deleted in Packing Instruction 520.

- 5.2.2.1.1 The reference to models Nos. 01-08 as illustrated in Clause 5.2.2.2.2 will be deleted. Subsidiary risk labels will be described in terms of models Nos. 1 to 9 of Clause 5.2.2.2.1, although not each of these will be used as a subsidiary risk label (e.g., 2,3, 7, 9). In addition, it will be clarified that the “EXPLOSIVE” subsidiary risk label is model No. 1.
- 5.2.2.1.3.1 The references to 06.1 and 04.1 will be changed to 6.1 and 4.1 respectively.
- 5.2.2.1.4 The entries in column four of the table will be corrected.
- 5.2.2.1.5 The last sentence is no longer needed and will be deleted.
- 5.2.2.1.9 This clause will be modified to delete the phrase “(model No. 03)”, and to replace 01 by 1 and 08 by 8 in paragraphs (a) and (b) respectively.
- 5.2.2.2.1.4 The structure of the last sentence will be corrected.
- 5.2.2.2.1.5 Removal of the distinction between primary and subsidiary labels makes this clause redundant and it will be deleted. The matter contained in this clause will be adequately covered by the requirements in clause 5.2.2.1.1 where references to model Nos. 1 to 9 incorporate reference to the class and division and any other matter in the bottom corner of the label.
- 5.2.2.2.2 In the label model No. 1, the matter relating to division and compatibility group should not be retained where the label is used to indicate subsidiary risk. Consequently, it is proposed that this information be omitted when EXPLOSIVE is the subsidiary risk.
- 5.2.2.2.2 In model No. 5.1, a typographical error will be corrected.
- 5.2.2.2.2.2 This clause is no longer needed and the contents of this page will be deleted.
- 5.4.1.1.5.2 The phrase “(model No. 01)” will be deleted.

8. The attached Annex contains the amendment instructions for Proposal 1.

9. It is observed that the Model Regulation is not consistent in its use of the phrases “primary risk label” and “subsidiary risk label”. This is the subject of Proposal 2.

#### Proposal 1

It is proposed that the amendments as shown in Annex 1 be adopted.

Proposal 2

It is proposed that

- (a) in Clause 5.1.4 the phrase “secondary risk label” be changed to “subsidiary risk label”;
- (b) in Clause 5.2.2.1.6 the phrase “primary and subsidiary hazard labels” be changed to “primary and subsidiary risk labels”; and,
- (c) in Clause 5.2.2.1.10 the phrase “primary hazard label” be changed to “primary risk label”.

## Annex

### **Part A**

#### **Amendment Instruction 1:**

In the “Notes on 2.5.3.2.4”, change notes 3, 13 and 27 to read:

- “ 3) “EXPLOSIVE” subsidiary risk label required.
- 13) “CORROSIVE” subsidiary risk label required.
- 27) For concentrations more than 56%, “CORROSIVE” subsidiary risk label required.”

#### **Amendment Instruction 2:**

Change special provision 162 to read:

“162 Mixtures with a flash point of less than 23 °C shall bear a flammable liquid subsidiary risk label.”

#### **Amendment Instruction 3:**

In the last line of Packing Instruction 520, delete the phrase “(Model No. 01)”.

### **Part B**

#### **Amendment Instruction 4:**

In the remainder of this Part B, delete text with a strike-through and add text which is in bold type.

“5.2.2 Labelling

5.2.2.1 Labelling provisions

*Note: These provisions relate essentially to danger labels. However, additional markings or symbols indicating precautions to be taken in handling or storing a package (e.g. a symbol representing an umbrella indicating that a package shall be kept dry) may be displayed on a package if appropriate.*

5.2.2.1.1 Labels identifying primary **and subsidiary** risks shall conform to models Nos. 1 to 9 illustrated in 5.2.2.2.2.4. **The “Explosive” subsidiary risk label is model No. 1.** ~~Labels identifying subsidiary risks shall display only the appropriate symbol and shall conform to models Nos. 01 to 08 illustrated in 5.2.2.2.2.2.~~

5.2.2.1.2 Where articles or substances are specifically listed in the Dangerous Goods List, a danger class label shall be affixed for the risk shown in Column 3 of the List and a subsidiary risk label **shall be affixed** for any risk indicated by a class or division number in the Column 4 of the List, unless qualified by a special provision.

In certain cases the need for using a subsidiary risk label may also be indicated by a special provision indicated in Column 6 of the List.

5.2.2.1.3 Except as provided in 5.2.2.1.3.1, if a substance which meets the definition of more than one class is not specifically listed by name in the Dangerous Goods List in Chapter 3.2, the provisions in Chapter 2.0 shall be used to determine the primary risk class of the goods. In addition to the label required for that primary risk class, subsidiary risk labels shall also be applied as specified in the Dangerous Goods List.

5.2.2.1.3.1 Substances of Class 8 need not bear subsidiary risk label model No.  $\theta$  6.1 if the toxicity arises solely from the destructive effect on tissue. Substances of Division 4.2 need not bear subsidiary risk label model No.  $\theta$  4.1.

5.2.2.1.4 *Labels for Class 2 gases with subsidiary risk(s)*

| Division | Subsidiary risk(s) shown in Chapter 2 | Primary risk Label | Subsidiary risk label(s)        |
|----------|---------------------------------------|--------------------|---------------------------------|
| 2.1      | None                                  | 2.1                | None                            |
| 2.2      | None                                  | 2.2                | None                            |
|          | 5.1                                   | 2.2                | <del>05</del> <b>5.1</b>        |
| 2.3      | None                                  | 2.3                | None                            |
|          | 2.1                                   | 2.3                | <del>03</del> <b>2.1</b>        |
|          | 5.1                                   | 2.3                | <del>05</del> <b>5.1</b>        |
|          | 5.1, 8                                | 2.3                | <del>05, 08</del> <b>5.1, 8</b> |
|          | 8                                     | 2.3                | <del>08</del> <b>8</b>          |
|          | 2.1, 8                                | 2.3                | <del>03, 08</del> <b>2.1, 8</b> |

5.2.2.1.5 Three separate labels have been provided for Class 2, one for flammable gases of Division 2.1 (red), one for non-flammable, non-toxic gases of Division 2.2 (green) and one for toxic gases of Division 2.3 (white). Where the Dangerous Goods List indicates that a Class 2 gas possesses single or multiple subsidiary risks, labels shall be used in accordance with the table in 5.2.2.1.4. ~~In each case, the primary risk label shown in Column 3 of that table shall conform to 5.2.2.2.2 (models Nos. 2.1, 2.2 or 2.3).~~

5.2.2.1.6 Each label shall:

- (a) Be located on the same surface of the package near the proper shipping name marking, if the package dimensions are adequate;
- (b) Be so placed on the packaging that they are not covered or obscured by any part or attachment to the packaging or any other label or marking; and
- (c) When primary and subsidiary ~~hazard risk~~ labels are required, be displayed next to each other.

Where a package is of such an irregular shape or small size that a label cannot be satisfactorily affixed, the label may be attached to the package by a securely affixed tag or other suitable means.

5.2.2.1.7 Intermediate bulk containers of more than 450 litres capacity shall be labelled on two opposing sides.

5.2.2.1.8 Labels shall be affixed on a surface of contrasting colour.

5.2.2.1.9 *Special provisions for the labelling of organic peroxides*

The Division 5.2 label (model No. 5.2) shall be affixed to packages containing organic peroxides classified as types B, C, D, E or F. This label also implies that the product may be flammable and hence no "FLAMMABLE LIQUID" (~~model No. 03~~) subsidiary risk label is required. In addition, the following subsidiary risk labels shall be applied:

- (a) An "EXPLOSIVE" subsidiary risk label (model No. 01) for organic peroxides type B, unless the competent authority has permitted this label to be dispensed with for a specific packaging because test data have proved that the organic peroxide in such a packaging does not exhibit explosive behaviour;
- (b) A "CORROSIVE" subsidiary risk label (model No. 08) is required when Packing Group I or II criteria of Class 8 are met.

5.2.2.1.10 *Special provisions for the labelling of infectious substances packages*

In addition to the primary **hazard risk** label (model No. 6.2), infectious substances packages shall bear any other label required by the nature of the contents.

5.2.2.2 *Provisions for labels*

5.2.2.2.1 Labels shall satisfy the provisions of this section and conform, in terms of colour, symbols and general format, to the specimen labels shown in 5.2.2.2.2.

5.2.2.2.1.1 Labels shall be in the form of a square set at an angle of 45° (diamond-shaped) with minimum dimensions of 100 mm by 100 mm, except in the case of packages of such dimensions that they can only bear smaller labels and as provided in 5.2.2.2.1.2. They have a line of the same colour as the symbol, 5 mm inside the edge and running parallel with it.

5.2.2.2.1.2 Gas cylinders for Class 2 may, on account of their shape, orientation and securing mechanisms for transport, bear labels representative of those specified in this section, which have been reduced in size, as appropriate, for display on the non-cylindrical part (shoulder) of such cylinders.

5.2.2.2.1.3 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.

5.2.2.2.1.4 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 show in the upper half the division number and in the lower half the compatibility group letter. For Division 1.4, Compatibility Group S, no label is generally required. However, in cases where a label is considered necessary for such goods **the** label it shall be based on model No. 1.4.

~~5.2.2.2.1.5 — In the case of primary risk labels for Class 5, the division number of the substance shall be shown in the bottom corner of the label. For all other primary risk labels, the class number of the substance or article shall be shown in the bottom corner of the label. Specimens of the primary risk labels for each class are given in 5.2.2.2.2.1 (models Nos. 1 to 9).~~

5.2.2.2.1.65 Blanks in the text appearing in the lower half of the labels for material of Class 7 shall be completed as necessary (refer to the Regulations for the Safe Transport of Radioactive Material (1996 Edition), IAEA Safety Standards Series No. ST-1, paras. 541-545 and 554, for the detailed provisions concerning the labelling for Class 7). On labels other than those for material of Class 7, the insertion of any text (other than the class or division number) in the space below the symbol shall be confined to particulars indicating the nature of the risk and precautions to be taken in handling.



5.2.2.2.1.7 **6** The symbols, texts and numbers shall be shown in black on all labels except **for**:

- (a) the Class 8 label, where the text (if any) and class number shall appear in white; and
- (b) labels with entirely green, red or blue backgrounds where they may be shown in white.

5.2.2.2.1.8 **7** All labels shall be able to withstand open weather exposure without a substantial reduction in effectiveness.

5.2.2.2.2 Specimen labels

~~5.2.2.2.2.1 Specimen primary risk labels~~

## **Part C**

### **Amendment Instruction 5:**

In the text following the labels for Class 1, replace the lines

- “ \*\* Place for division
- \* Place for compatibility group”

with the lines

- “ \*\* Place for division – to be left blank if explosive is the subsidiary risk
- \* Place for compatibility group – to be left blank if explosive is the subsidiary risk”

### **Amendment Instruction 6:**

In the text below the label (No. 5.1) replace the word “Oxydizing” with the word “Oxidizing”

### **Amendment Instruction 7:**

Delete all of 5.2.2.2.2.2 (i.e., page 320).

### **Amendment Instruction 8:**

In clause 5.4.1.1.5.2 delete the phrase “(model No. 01)”.

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