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Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Sub-Committee of Experts on the Transport of Dangerous Goods

Thirty-eighth session
Geneva, 29 November–7 December 2010
Item 6 of the provisional agenda
Miscellaneous proposals of amendments to the Model Regulations on the Transport of Dangerous goods

Description of the dimensions and shape of labels or marks etc

Transmitted by the expert from the United Kingdom[1]

Background

1. During the discussion of document ST/SG/AC.10/C.3/2010/2 (Stacking load on large packagings) at the thirty-seventh session of the Sub-Committee (June 2010), the expert from Japan raised the issue of the interpretation of the minimum dimensions of the stacking load symbol for IBCs in paragraph 6.5.2.2.2 of the Model Regulations.

2. The expert from the United Kingdom agrees that the wording used to describe the dimensions of symbols can be open to various interpretations. He is also of the view that this can also occur with the description of most labels, marks etc required for the transport of dangerous goods. In some cases, this could cause problems with the enforcement of the regulations, where differing interpretations may be made by the carrier and an enforcement officer. Indeed, enforcement officers in different countries may also vary in interpretation. The result of this could be fines for carriers who make every effort to follow the regulations in good faith.

[1] In accordance with the programme of work of the Sub-Committee for 2009-2010 approved by the Committee at its fourth session (refer to ST/SG/AC.10/C.3/68, para. 118 (d) and ST/SG/AC.10/36, para. 14).

Discussion of issues with particular labels or marks etc

3. Dealing first with the example raised by the expert from Japan; although it might be suggested that the dimensions should be based on the printer's marks on the edge of the stacking load symbol, it is not stated to be so in the text of 6.5.2.2.2. It does not either explicitly state that each minimum dimension (cited as "not less than") could be different, thus resulting in a possibly distorted rectangular shape. The expert from the United Kingdom is not worried about this particular symbol being non-square provided it is clearly legible, although he appreciates that other experts may prefer the shape of the symbol to be more clearly stated.

4. Another example can be found in paragraph 5.3.2.2 for the mark for carriage at elevated temperatures. This does not specify that the triangular mark should be an equilateral triangle. In addition, the curved corners of the triangle make it difficult to know exactly where the minimum 250 mm side length should be measured to and from. The latter point in particular may cause problems for carriers, label manufacturers or packaging designers trying to comply with the regulations.

5. A further example of imprecise wording can be found in paragraph 5.2.1.6.3 (Environmentally hazardous substance mark).

> "5.2.1.6.3 The environmentally hazardous substance mark shall be as shown in Figure 5.2.2. For packagings, the dimensions shall be 100 mm x 100 mm, except in the case of packages of such dimensions that they can only bear smaller marks. For cargo transport units (see 5.3.2.3.1), the minimum dimensions shall be 250 mm x 250 mm.".
>
> Again, no mention is made that the dimensions of each of the sides should be the same (although the United Kingdom presumes this is intended to be the case). Furthermore, it is not stated whether the minimum dimensions should run along the edge of the mark or from corner to corner. Figure 5.2.2 below 5.2.1.6.3 does not state this either.

6. The problem of where the dimensions should run also exists in 5.2.2.2.1.1:

> "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 x 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 shall have a line 5 mm inside the edge and running parallel with it. In the upper half of a label the line shall have the same colour as the figure in the bottom corner. Labels shall be displayed on a background of contrasting colour, or shall have either a dotted or solid boundary line.".

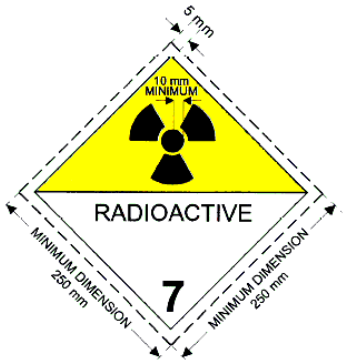
7. The expert from United Kingdom notes that even in a highly detailed and precise description, ambiguity has nonetheless crept in as it is not stated whether the dimensions should run along the edges or into the corners.

Possible solution

8. The expert from the United Kingdom does not intend to submit a formal proposal at this late stage in the current biennium. However, he puts forward a possible solution below which he suggests could improve the clarity of the Model Regulations. The United Kingdom would welcome the views of the Sub-Committee on this suggestion. If the Sub-Committee feels that it is worthwhile pursuing the expert from the United Kingdom will prepare a formal proposal for the next session taking into accounts comments received both verbally and in writing.

9. The United Kingdom notes Figure 5.3.1 describing a class 7 placard includes dimensional arrows on the diagram in addition to the descriptive text in 5.3.1.2.1.

Figure 5.3.1
Placard for radioactive material of Class 7



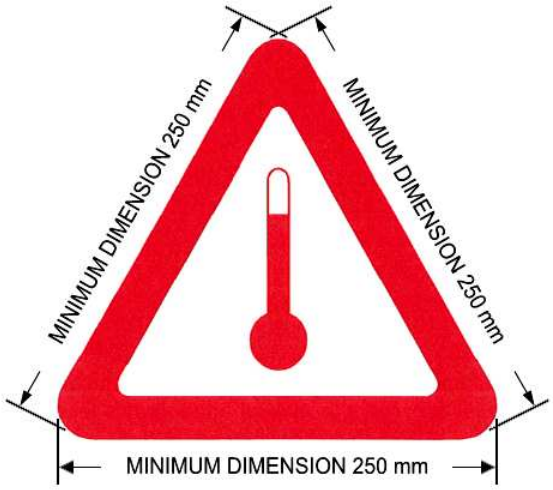
(No. 7D)
Symbol (trefoil): black; Background: upper half yellow with white border, lower half white;
The lower half shall show the word RADIOACTIVE or alternatively, when required (see 5.3.2.1), the appropriate UN number; and the figure "7" in the bottom corner

10. If a diagram with dimensional arrows were to be added to a description of a label or mark etc such as that provided in 5.2.2.2.1.1 (providing clear shape and corner angle specifications), the size and shape would be clearly described removing any reasonable doubt about the intent of the regulation.

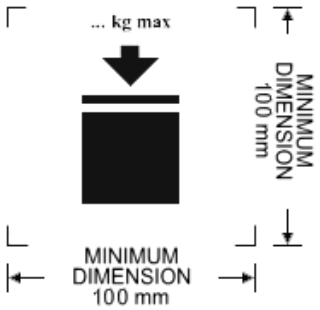
11. Figure 5.3.1 also has the advantage of indicating a minimum 5 mm border outside of the shape of the placard which determines parameters for the manufacturer producing placards. A similar indication for labels or marks would also assist printers in producing such labels or marks.

12. In the case of the mark for carriage at elevated temperatures in paragraph 5.3.2.2, the arrows could point to the exact point that the 250 mm dimension should refer. Additional text could make clear that the triangle should be equilateral. Note that at this stage the United Kingdom is only making a suggestion as to where the 250 mm length should be actually measured.

Figure 5.3.4
Mark for carriage at elevated temperature



13. In the case of the stacking load symbol in 6.5.2.2.2, the dimension arrows could point to the edge of the printer's marks.



14. There may also be a need for explanatory text to indicate that the mark should be square irrespective of any dimension chosen in excess of the minimum.

15. The expert from the United Kingdom realises that for the labels listed in section 5.2.2.2, it might be undesirable to provide dimensional arrows on every one of the many specimen labels listed, but instead have a generic dimensional diagram showing the general dimensions in a manner similar to that in Figure 5.3.1.

16. The United Kingdom expert would not anticipate any problems of interpreting the measurements added to the diagrams either by the graphics designers of the label manufacturers, carriers or enforcement agencies.