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# COMMITTEE OF EXPERTS ON THE TRANSPORT OF DANGEROUS GOODS

Sub-Committee of Experts on the Transport of Dangerous Goods (Eighteenth session, 3-14 July 2000, agenda item 5 (d))

## MISCELLANEOUS DRAFT AMENDMENTS TO THE MODEL REGULATIONS ON THE TRANSPORT OF DANGEROUS GOODS

## **Packagings**

#### Paper bag markings

#### Transmitted by the expert from the People's Republic of China

#### **Background**

In recent years, a new kind of "paper bag" has been available. It is made of net-cloth which is prestressed and superheated, stuck to paper on both sides (several times). The net-cloths and adhesive are water-soluble organic compounds. When burned or buried, they will not pollute the air, the soil and water resources. They are packages which are in conformity with respect to environmental protection, and have passed satisfactorily the tests specified in 6.1.5 of the Recommendations on the Transport of Dangerous Goods (ST/SG/AC.10/1/Rev.11). For these reasons, they are being used more and more widely to pack dangerous goods, especially in countries that have more strict environmental protection standards and have laws on packages. China has been using these kinds of "paper bag" for the export of dangerous goods such as dyes and intermediates. More than a million bags have been used in recent years for the export of dangerous goods lined in UN 1592 (Class 6.1), 3341 (Class 4.2) and 1507 (Class 5.1), etc. However, it is very difficult to define the marking of these kinds of "paper bags". It should not bear the marking of textile bags (5L2, 5L3) or simply the marking of paper bags (5M1, 5M2).

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It cannot be defined as the marking of textile bags (5L2, 5L3) because it is defined in both clause 6.1.4.15.2 and clause 6.1.4.15.3 of the Recommendations on the Transport of Dangerous Goods (ST/SG/AC.10/1/Rev.11) that paper is stuck on the inner surface of the bag.

However, paper is also stuck on the outer surface of the net-cloth of these kinds of "paper bags". What is more important is that the net-cloths of these kinds of "paper bags" do not function as packages but act as a fortified reinforcement between two plies of paper to improve the strength of the paper. It is the paper that function as packages.

These kinds of "paper bags" cannot be defined as textile bags just as reinforced concrete cement flags cannot be called reinforced flags.

It cannot be simply defined as the marking of paper bags (5M1, 5M2) because it is defined in the Recommendations on the Transport of Dangerous Goods (ST/SG/AC.10/1/Rev.11) that paper bags are made of more than three plies of paper (see Clause 6.1.4.18.1). However, these kinds of "paper bags" are actually made of only two plies of paper.

From the above, it can be seen that if "at least three plies" in clause 6.1.4.18.1 (ST/SG/AC.10/1/Rev.11) is changed to "at least two plies", these kinds of "paper bags" really could be called paper bags. And, from the view of paper-making technology, "ply" is an indistinct concept because paper is made from multi-plies of paper pulp. This change is feasible, and these kinds of "paper bags" could then be marked as 5M1 or 5M2 (if the inner liners is water resistant).

## **Proposal**

Revising the following section:

6.1.4.18.1 Bags shall be made of a suitable kraft paper or of an equivalent paper with at least two plies. The strength of the paper and the construction of the bags shall be appropriate to the capacity of the bag and to its intended use. Joins and closures shall be sift-proof.