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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**

**Forty-second session**

Geneva, 3–11 December 2012

Item 7 of the provisional agenda

**New proposals for amendments to the Model Regulations  
on the Transport of Dangerous Goods**

**Scope of 5.5.3**

**Transmitted by the expert of Switzerland<sup>1</sup>**

*Summary*

**Executive summary:** Defining the scope of section 5.5.3

**Action to be taken:** Amend the heading of section 5.5.3 and add an explanatory NOTE in 5.5.3.6

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<sup>1</sup> In accordance with the programme of work of the Sub-Committee for 2011–2012 approved by the Committee at its fifth session (refer to ST/SG/AC.10/C.3/76, para. 116 and ST/SG/AC.10/38, para. 16).

## Introduction

1. The provisions of 5.5.3 which will enter into force in 2013 under international regulations that make use of the UN Model Regulations have already raised queries from users responsible for the distribution of refrigerated shipments. The wording of this section is such that, irrespective of the quantity of cooling agent carried, the vehicles will have to bear the mark envisaged in 5.5.3.6. In the opinion of users, this measure seems exaggerated. It concerns a disproportionate number of consignments without really bringing any additional safety. The needless multiplication of this mark on the roads is likely to alarm the population unnecessarily. If it happens that it must be placed even in cases where no risk of asphyxiation exists, the mark will lose any credibility and the goal will not be reached.

2. For the moment, the wording of the 5.5.3 does not allow any room for manoeuvre. The heading says: “**Special provisions applicable to packages and containers containing substances presenting a risk of asphyxiation ...**”. By definition, the substances concerned present a risk of asphyxiation. There is thus no loophole if the substances are used as a cooling agent or for conditioning purposes, and the mark of 5.5.3.6 will have to be affixed on the vehicle, irrespective of the quantity in which they are present.

3. The expert from Switzerland has consulted authorities from other countries, particularly those that apply ADR. Some consider that, if the risk of asphyxiation is not given, then 5.5.3 is not applicable. The expert from Switzerland could agree with this interpretation, but only on the condition that the texts also reflect it. Currently this is not the case. For this reason, the expert from Switzerland asks the Sub-Committee to define a scope of 5.5.3 which makes sense from the point of view of safety and which can be interpreted in a uniform way by those who have to apply it.

## Proposal 1

4. Amend the heading of 5.5.3 to read:

**“Special provisions applicable to packages and vehicles and containers presenting a risk of asphyxiation containing arising from substances ~~presenting a risk of asphyxiation when used for cooling or conditioning purposes (such as dry ice (UN 1845) or nitrogen, refrigerated liquid (UN 1977) or argon, refrigerated liquid (UN 1951)).~~”**

## Justification

5. This wording does not link the applicability of the provisions to the fact that the substances are asphyxiant, which is always the case for the products referred to, but to the fact that there is a risk of asphyxiation. If there is no risk of asphyxiation because, for instance, of the volumes involved or because the transport unit is equipped with means to avoid such a risk, the provisions of 5.5.3 do not apply.

6. Moreover, it seems necessary to specify the scope of 5.5.3.6 in a NOTE in 5.5.3.6 as shown in proposal 2 below.

## Proposal 2

7. Add a NOTE to 5.5.3.6 to read as follows:

“The marking of cargo transport units in accordance with this subsection is not necessary when the risk of dangerous accumulation of asphyxiant gas is excluded, as for example when the maximum volume of asphyxiant gas that could be released is small in relation to the volume of the cargo transport unit or when the unit is open or is sufficiently well ventilated to prevent any dangerous accumulation of asphyxiant gas.”

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