

## 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

23 November 2010

### Thirty-eighth session

Geneva, 29 November – 7 December 2010

Item 2 of the provisional agenda

### Recommendations made by the Sub-Committee

at its thirty-fifth, thirty-sixth and thirty-seventh sessions

## Transport of coolant/conditioning units: comments to ST/SG/AC.10/C.3/2010/50

Transmitted by the expert of the Netherlands

### Introduction

1. At the last session, document ST/SG/AC.10/C.3/2010/12 concerning the transport of coolant/conditioning units and transmitted by the experts from Germany, Netherlands and the United Kingdom was discussed. Reference is made to ST/SG/AC.10/C.3/74 paragraphs 87-89. Most of the text was adopted and is included in the addendum to the report (ST/SG/AC.10/C.3/74/Add.1) and in the draft amendments to the Model Regulations in document ST/SG/AC.10/C.3/2010/50 transmitted by the secretariat.

2. One issue was not solved and was put in square brackets. It concerns whether or not 5.5.3 is applicable to the transport of packagings containing UN 3373 BIOLOGICAL SUBSTANCE, CATEGORY B (Packing instruction P650) and the transport of packagings containing UN 3245 GENETICALLY MODIFIED MICROORGANISMS or GENETICALLY MODIFIED ORGANISMS (Packing instruction P904) when these substances are cooled by dangerous substances, such as dry ice or liquid nitrogen. In paragraph 89 of the report ST/SG/AC.10/C.3/74: “The question whether the new section 5.5.3 should also apply to dangerous goods packed in accordance with P650 or P904 was deferred to the next session, and the corresponding text in P650 and P904 was placed between square brackets (see annex I).

### Discussion

3. In the new 5.5.3, general provisions are developed for dangerous substances used as coolant, such as dry ice and liquid nitrogen. This section applies to all substances, dangerous as well as non-dangerous substances. In our view it is not correct when the provisions for dangerous substances used as coolant are not applicable when UN 3373 and UN 3245 are carried under cooling conditions. For this reason, the expert of the Netherlands is in favour to require the provisions in 5.5.3 concerning cooling in all cases, including P650 and P904.

4. However it is recognised that the text in document ST/SG/AC.10/C.3/2010/50 is confusing because parts of 5.5.3 are also included in P650 and P904 and other parts are not. Also the first sentence “When dry ice or liquid nitrogen is used as a coolant, all applicable requirements of these Regulation shall be met” is very confusing because the essence of the new proposed 5.5.3 is that only 5.5.3 is applicable when a coolant is used. In the alternative option where 5.5.3 does not apply, this sentence is even in contradiction with that option.

5. If the meeting decides that 5.5.3 is applicable for P650 and P904 the following text is offered for consideration.

## Proposal

6. The text in document ST/SG/AC.10/C.3/2010/50 is reproduced below and the proposed amendments are presented in track changes.

**P650** Amend paragraph (9) to read as follows:

"(9) Refrigerated or frozen specimens: Ice, dry ice and liquid nitrogen

(a) When dry ice or liquid nitrogen is used as a coolant, the requirements of 5.5.3 shall apply. ~~all applicable requirements of these Regulations shall be met.~~ When used, ice ~~or dry ice~~ shall be placed outside the secondary packagings or in the outer packaging or an overpack. Interior supports shall be provided to secure the secondary packagings in the original position after the ice ~~or dry ice~~ has dissipated. If ice is used, the outside packaging or overpack shall be leakproof. ~~If carbon dioxide, solid (dry ice) is used, the packaging shall be designed and constructed to permit the release of carbon dioxide gas to prevent a build up of pressure that could rupture the packagings and the package (the outer packaging or the overpack) shall be marked with the words "CARBON DIOXIDE, SOLID, AS COOLANT" or "DRY ICE, AS COOLANT".~~

~~At the end of the additional requirement, add a new sentence to read as follows:~~

~~["Packages containing a coolant or conditioner shall be transported in well ventilated cargo transport units.][The requirements of 5.5.3 shall also apply."]~~

**P904** Amend the additional requirement to read as follows:

**"Additional requirement:**

Ice, dry ice and liquid nitrogen

When dry ice or liquid nitrogen is used as a coolant, the requirements of 5.5.3 shall apply. ~~all applicable requirements of these Regulations shall be met.~~ When used, ice ~~or dry ice~~ shall be placed outside the secondary packagings or in the outer packaging or an overpack. Interior supports shall be provided to secure the secondary packaging in the original position after the ice ~~or dry ice~~ has dissipated. If ice is used, the outside packaging or overpack shall be leakproof. ~~If carbon dioxide, solid (dry ice) is used, the packaging shall be designed and constructed to permit the release of carbon dioxide gas to prevent a build up of pressure that could rupture the packagings and the package (the outer packaging or the overpack) shall be marked with the words "CARBON DIOXIDE, SOLID, AS COOLANT" or "DRY ICE, AS COOLANT".~~

~~The primary receptacle and the secondary packaging shall maintain their integrity at the temperature of the refrigerant used as well as the temperatures and the pressures which could result if refrigeration were lost.~~

~~["Packages containing a coolant or conditioner shall be transported in well ventilated cargo transport units.][The requirements of 5.5.3 shall also apply."]~~